# 1998 State-by-State Assessment of Low-Level Radioactive Wastes Received at Commercial Disposal Sites

National Low-Level Waste Management Program

Ronald L. Fuchs

May 1999

### 1998 STATE-BY-STATE ASSESSMENT OF LOW-LEVEL RADIOACTIVE WASTES RECEIVED AT COMMERCIAL DISPOSAL SITES

May 1999

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Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Restoration
and Waste Management
Under DOE Idaho Operations Office
Contract No. DE-AC07-94ID13223

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#### **ABSTRACT**

Each year the National Low-Level Waste Management Program publishes a state-by-state assessment report. This report provides both national and state-specific disposal data on low-level radioactive waste commercially disposed in the United States. Data in this report are categorized according to disposal site, generator category, waste class, volumes, and radionuclide activity. Included in this report are tables showing the distribution of waste by state for 1998 and a comparison of waste volumes and radioactivity by state for 1994 through 1998; also included is a list of all commercial nuclear power reactors in the United States as of December 31, 1998.

#### NOTICE

The State-by-State assessment documents for 1993 through 1998 have been made available on the Program's Internet home page at "http://www.inel.gov/national/national.html" for your convenience. These data are also presented on the MIMS system at "http://mims.inel.gov" through current month.

The information presented in this report is meant to be informative to the reader and provide accurate disposal figures for the commercial low-level radioactive waste being shipped for disposal within the United States. The disposal volumes in this report are presented using cubic foot (ft<sup>3</sup>) measurement, if the reader prefers cubic meters, divide the reported ft<sup>3</sup> number by 35.314. In this year's document, additional comparison graphs for the years 1989 through 1998 have been provided, for your convenience, at the national, compact region, and state levels.

Comments and suggestions as to how this document may better address your needs for information on this subject are welcomed. Comments may be sent to the address listed below:

National Low-Level Waste Management Program Lockheed Martin Idaho Technologies Company P.O. Box 1625 Idaho Falls, ID 83415-3425

or

Email "sysdemo@inel.gov"

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# 1998 STATE-BY-STATE ASSESSMENT OF LOW-LEVEL RADIOACTIVE WASTES RECEIVED AT COMMERCIAL DISPOSAL SITES

#### 1. INTRODUCTION

The National Low-Level Waste Management Program (NLLWMP) has published 20 annual state-by-state assessment reports. These reports provide both national and state-specific disposal data that assist states in the management of low-level radioactive waste (LLW), as specified in the Low-Level Radioactive Waste Policy Act (Public Law 96-573) and the Low-Level Radioactive Waste Policy Amendments Act of 1985 [(LLRWPAA) Public Law 99-240].

Over the past 20 years every state has disposed of some quantity of LLW. This waste is generated from a variety of commercial sources, such as

- Government and industrial research
- Generation of electrical power
- Medical diagnostic and therapeutic services
- Various manufacturing processes.

Before publishing the first state-by-state report in 1979, researchers studied the quantities and radioactivity levels of LLW disposed of in the United States. The first report was designed to assist states in extrapolating accurate estimates of disposal rates by separating wastes into four broad categories:

- Government
- Industrial
- Institutional
- Utility.

In 1983, the categories were further refined by establishing more specific categories for Institutional waste. This resulted in five categories, as follows:

- Academic
- Government
- Industrial
- Medical
- Utility.

Currently, commercial disposal sites report actual volumes disposed of for each of these five categories.

The volume of LLW disposed of at commercial disposal sites exceeded 3.7 million cubic feet in 1980. This represents the highest reported annual volume of LLW disposed of during the history of the state-by-state assessment documents. From 1981 through 1990, the volume of LLW being disposed of at commercial disposal sites declined. In 1991 and 1992, the reported volume of LLW received for disposal at commercial sites showed a slight increase. This increase is believed to be the result of the anticipated increase in disposal costs and, in 1992, the anticipated closure on January 1, 1993, of the Barnwell, South Carolina, Beatty, Nevada, and Richland, Washington disposal facilities to "out-of-region" generators. On December 31, 1992, the Beatty, Nevada, site stopped receiving LLW for disposal altogether, and the Richland, Washington, site restricted the LLW received for disposal to the Northwest and Rocky Mountain compact states. The Barnwell, South Carolina, disposal facility continued to receive LLW for disposal by the member states of the Southeast compact and those compact states that had contracts with the Southeast commission through June 1994. On July 1, 1994, the Barnwell site restricted disposal to only member states of the Southeast LLW compact. South Carolina withdrew from the Southeast compact and on July 1, 1995, the Barnwell site began accepting LLW for disposal from all states, with the exception of North Carolina.

In summary, as of July 1, 1995, the only state that is being denied LLW disposal access is North Carolina. The Barnwell, South Carolina, LLW disposal facility is operated by Chem-Nuclear Systems, LLC and is accepting LLW shipments for disposal from all states excluding North Carolina. The Richland, Washington, commercial LLW disposal facility is operated by US Ecology, Inc. and accepts LLW shipments for disposal from only member states of the Northwest and Rocky Mountain compact regions.

Envirocare of Utah began receiving small quantities of commercially generated low activity low—level radioactive waste in 1994. The 1998 state-by-state assessment report is the first report in this series that includes Envirocare data. The National Low-Level Waste Management Program began receiving limited disposal data from Envirocare beginning with the 1998 calendar year. The Program has not yet obtained 1994 through 1997 disposal information from Envirocare of Utah.

The reported 1998 disposal volume was 1,419,034 cubic feet. A list of the 1998 LLW volumes and radioactivity reported as disposed by state is provided in Table 1. Alaska is the only state that reported no LLW disposal shipments made in 1998.

The first state-by-state assessment used several data sources. These included U.S. Nuclear Regulatory Commission (NRC) records on nuclear power plant waste shipments,<sup>1</sup> the U.S. Department of Energy Solid Waste Information Management Systems<sup>2</sup> for information on defense waste shipped to commercial sites, and the University of Maryland (at Baltimore) studies on national institutional waste generation.<sup>3,4</sup> Since its initial publication, this report has been modified and expanded as more detailed state information became available from the disposal sites. Results from generator surveys and feedback from state officials continue to improve understanding of the sources of LLW and the quality of the data.

**Table 1.** 1998 waste distribution by state as reported by disposal site operators as of March 1, 1999.

States	Volume (ft <sup>3</sup> )	Activity (curies)
Alabama	7,552.41	3,583.19
Alaska	0.00	0.00
Arizona	3,885.56	246.07
Arkansas	365.64	7.25
Army Out U.S.b	0.00	0.00
California	12,202.46	570.62
Colorado	1,749.18	974.60
Connecticut	8,653.00	223.28
Delaware	173.79	.07
Dis Of Columbia	245.15	25.94
Florida	39,531.35	2,088.63
Georgia	9,916.08	1,232.77
Hawaii	1,809.13	692.31
Idaho	6.29	22.04
Illinois	64,947.44	112,662.21
Indiana	73.71	45.32
Iowa	1,035.88	266.70
Kansas	1,013.83	353.53
Kentucky	3,006.28	5.09
Louisiana	1,234.75	291.98
Maine	4,125.40	1,066.91
Maryland	7,604.61	531.54
Massachusetts	155,654.26	18,998.41
Michigan	81,700.98	37,423.61
Minnesota	1,316.63	313.95
Mississippi	776.66	17,375.75
Missouri	16,127.81	811.53
Montana	8.81	.03
Nebraska	2,921.86	7,747.48
Nevada	56.44	.02
New Hampshire	261.55	85.76
New Jersey	8,553.44	21,182.92

b. Army Out U.S. = U.S. owned military bases located outside the continental United States.

 Table 1. (continued).

States	Volume (ft <sup>3</sup> )	Activity (curies)
New Mexico	396.34	12.31
New York	13,833.88	54,757.14
North Carolina	7,390.20	4.40
North Dakota	48.77	1.92
Ohio	130,507.19	99.75
Oklahoma	795.98	.02
Oregon	92,742.95	551.06
Pennsylvania	42,686.01	43,690.95
Puerto Rico	11.18	<.01
Rhode Island	53.20	21.67
South Carolina	14,135.48	1,188.91
South Dakota	2.20	18.93
Tennessee	435,276.41	723.07
Texas	13,067.38	1,887.28
Utah	17,204.38	1.99
Vermont	25.58	<.01
Virginia	24,752.62	2,538.10
Washington	30,809.97	149.84
West Virginia	48.02	37.33
Wisconsin	1,544.07	8.05
Wyoming	4.10	.03
Unknown <sup>c</sup>	157,187.83	40.48
TOTAL	1,419,034.12	334,562.76

c. Brokered LLW disposed at Envirocare of Utah, state or origin Unknown.

#### 2. 1998 REPORTING METHOD AND SUMMARY

The data for the 1998 state-by-state assessment report were developed from the Department of Energy's Manifest Information Management System with data originating from LLW shipment manifests recorded at the commercial LLW disposal sites located at Barnwell, South Carolina; Clive, Utah; and Richland, Washington. 1,2,3 This information is presented in Appendix A with expanded graphics.

Data presented in this report that originated from the Envirocare site located at Clive, Utah has some limitations that need to be noted. These are 1) Waste shipments received, at the Envirocare site, from a waste broker or processor has been assigned to a state of origin "Unknown." Originally these wastes were assigned to the state that the broker or processor operated from, this is not necessarily the state in which the waste was generated. 2) Envirocare of Utah believes that it is inappropriate to provide the generator type (academic, government, industrial, medical, or utility) with disposal data from their site. These data are identified as "undefined" in this document.

Reports generated for 1979 through 1987 in this series have attributed waste that was processed or consolidated into larger shipments at intermediate waste management facilities to the states in which those facilities were located. The report generated for 1988 through 1996 attributes waste volume, activity, and generator type by source to the original state in which it was generated, even where brokered shipments included waste originally generated in more than one state. This change in reporting method was made possible because of changes in the manifesting requirements for brokered shipments at the sited states. The waste volumes for states such as Tennessee, where a significant volume of waste is processed through several large waste management facilities, were the most notably affected.

Due to the change in reporting methods, which began in 1988, it became necessary to make a distinction between LLW shipments shipped directly from the generator to the disposal site and those LLW shipments that were shipped through an intermediary. The new reporting method required intermediary waste handlers to associate LLW by volume and activity to the generator and state of origin. This requirement, however, does not require an association of generator and state for information relating to the specific waste radionuclide or waste classification. For this reason, two classifications of waste shipments have been maintained in this report since 1988:

- Nondirect: Shipments from the generator to the disposal facility through an intermediary
- Direct: Shipments that did not involve an intermediary.

The Nuclear Regulatory Commission issued its final rule for uniform manifesting on March 27, 1995, in Federal Register, Vol. 60, No. 58., "10 CFR Parts 20 and 61 RIN 3150-AD33, Low-Level Waste Shipment Manifest Information and Reporting". The implementation date for mandatory compliance to the uniform manifest was March 1, 1998. Both Chem-Nuclear Systems, LLC and US Ecology, Inc. adopted the regulation's information gathering requirements beginning with 1997 data. This action allowed for

<sup>1.</sup> Data reported for the Barnwell, South Carolina disposal facility was obtained from Chem-Nuclear Systems, LLC, through subcontract number K98-564518.

<sup>2.</sup> Data reported for the Clive, Utah disposal facility was obtained from Envirocare of Utah, Inc. through subcontract number K98-564570.

<sup>3.</sup> Data reported for the Richland, Washington disposal facility was obtained from US Ecology, Inc. through subcontract number K98-564544.

the reporting of waste classification and radionuclide information to the waste originator eliminating the need for the Direct and Nondirect categories.

The data are arranged to allow the reader to locate information by area of interest, ranging from total commercial LLW disposed within the United States to LLW disposed by a specific state.

The information presented covers the distribution of LLW by

- Volume
- Activity
- Waste classification
- Waste generator type
- Disposal site
- Waste that has been subject to intermediate handling.

Waste generator categories are

- Academic
- Government
- Industrial
- Medical
- Utility.

The utility category includes commercial nuclear power reactors. The academic category includes university hospitals and university medical and nonmedical research facilities. Medical generators include hospitals and clinics, research facilities, and private medical offices. The industrial category encompasses private entities such as research and development companies, manufacturers, nondestructive testing, mining, fuel fabrication facilities, and radiopharmaceutical manufacturers. The government category includes state and federal agencies.

Appendix B contains a comparison of LLW disposal volumes by state for the most recent 5-year period, a comparison of the radioactivity of LLW disposed by State for the most recent 5-year period, and a complete list of the commercial nuclear power reactors located in the United States as of December 31, 1998.

A review of the data found in this report will show that in 1998, reporting commercial LLW disposal facilities received a total volume of 1,419,034 cubic feet of waste containing an activity of 334,562 curies. Waste distribution by disposal site is presented in Table 2; Tables 3 and 4 provide information concerning the typical radionuclide and waste forms associated with commercial LLW.

**Table 2.** Distribution of low-level radioactive waste received at disposal sites in 1998.

Site	Volume (ft <sup>3</sup> )	Percent of Total	Activity (curies)	Percent of Total
Barnwell	194,516	13.7	332,779	99.4
Envirocare	1,079,750	76.1	127	<.1
Richland	144,768	10.2	1,656	0.5
Total	1,419,034	100.0	334,562	100.0

**Table 3.** Radionuclides received through all low-level radioactive waste shipments at commercial disposal sites in 1998. The top 20 radionuclides are listed from highest to lowest activity levels (based on curie count).

Academic	Government	Industrial	Medical	Utility
Ni-63	H-3	H-3	Cs-137	Co-60
H-3	Co-60	Ni-63	H-3	Fe-55
Co-60	Fe-55	Co-60	I-125	Ni-63
Cs-137	Pm-147	Cs-137	Cr-51	Mn-54
C-14	Ni-63	Fe-55	S-35	Cs-137
Fe-55	Co-58	Zn-65	Zn-65	Cs-134
S-35	Mn-54	C-14	Sr-90	Co-58
Sr-90	U-238	Sr-90	Pd-103	Zn-65
P-32	Zn-65	Co-58	I-131	Ba-137m
Ni-59	Cs-137	Cs-134	C-14	Cr-51
I-125	S-35	Sb-125	P-32	Sb-125
Cr-51	C-14	Pm-147	Co-60	Ag-110m
Co-57	Kr-85	Gd-153	Co-57	Fe-59
Kr-85	P-32	S-35	Mn-54	Ni-59
U-238	Cr-51	Sn-119m	Tc-99	C-14
P-33	Sr-90	Mn-54	Fe-59	H-3
Mn-54	I-125	Ni-59	Co-58	Ce-144
Gd-153	Fe-59	Zr-95	U-238	Nb-95
Ca-45	P-33	Sn-123	Gd-153	Ru-106
Tc-99	Co-57	Co-57	Na-22	Co-57

#### Academic

Compacted trash or solids Institutional laboratory or biological waste Absorbed liquids Animal carcasses

#### Government

Compacted trash or solids Contaminated plant hardware Absorbed liquids

#### **Industrial**

Depleted uranium Compacted trash or solids Contaminated plant hardware Absorbed liquids Sealed sources

#### Medical

Compacted trash or solids Institutional laboratory or biological waste Absorbed liquids Sealed sources

#### **Utilities**

Spent resins
Evaporator bottoms and concentrated waste
Filter sludge
Dry compressible waste
Irradiated components
Contaminated plant hardware

#### 3. REFERENCES/NOTES

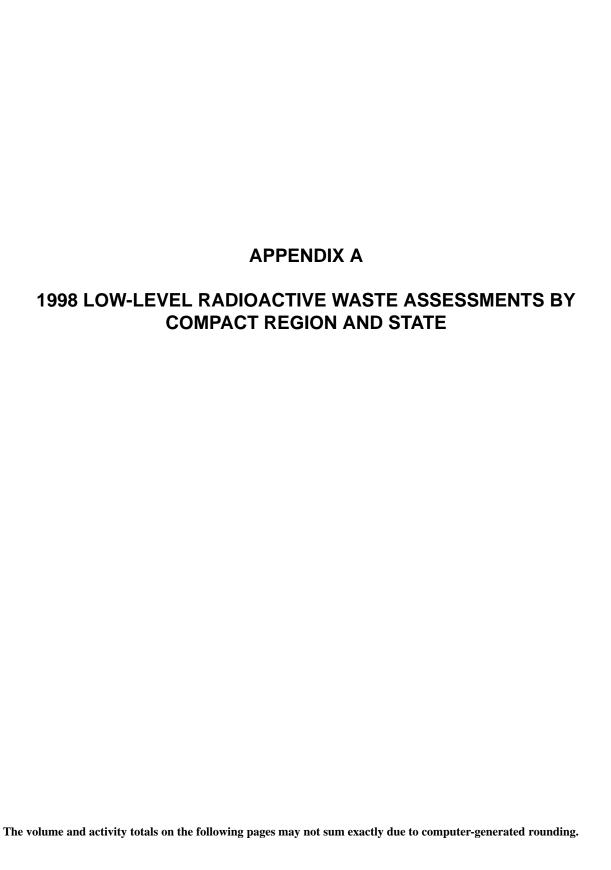
- 1. U.S. Nuclear Regulatory Commission, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light Water Cooled Nuclear Power Plants," Regulatory Guide 1.21, Revision 1, June 1974.
- 2. U.S. Department of Energy, Washington, D.C., "Solid Waste Information Management System (SWIMS)-Actual Solid Waste Generated for Fiscal Year 1979," February 22, 1980.
- 3. R. L. Anderson, L. R. Cooley, T. J. Beck, C. S. Strauss, *Institutional Radioactive Waste*, NUREG/CR-0028, Radiation Safety Office, University of Maryland at Baltimore, March 1978.
- 4. T. J. Beck, L. R. Cooley, M. R. McCampbell, *Institutional Radioactive Wastes-1977*, Radiation Safety Office, University of Maryland at Baltimore (draft), June 1979.
- Conference of Radiation Control Program Directors, Inc., Low-Level Radioactive Waste Management Survey Summary, 1984.

#### **General Text Notes**

- a. Data on this and all succeeding pages in Appendix A were provided by the Department of Energy's Manifest Information Management System as of March 1, 1999. Data originated with Chem-Nuclear Systems, LLC, Envirocare of Utah, Inc., and US Ecology, Inc.
- b. Army Out U.S. = U.S. owned military bases located outside the continental United States.
- c. Brokered LLW disposed at Envirocare of Utah, state or origin Unknown.
- d. The generation type (source) for LLW disposed at Envirocare of Utah is "Undefined."
- e. Approximately 157,187.83 cubic feet and 40.48 curies of LLW were disposed at Envirocare of Utah by way of an intermediary. The state of origin for this waste was not provided.

Note: A percentage of 157,188 cubic feet LLW received at Envirocare of Utah may have originated in this state. See references note "e" for further explanation.

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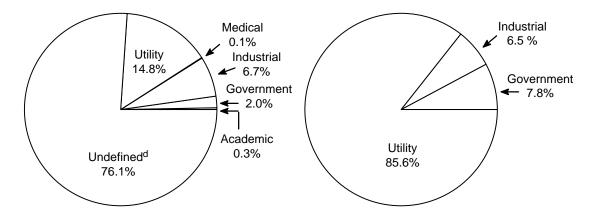
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# UNITED STATES Low-Level Radioactive Wastes Received at Commercial Disposal Sites<sup>a</sup> in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	4,904.79	132.12
Government	28,563.61	26,036.96
Industrial	94,455.69	21,827.57
Medical	1,456.31	9.98
Utility	209,903.60	286,428.73
Undefined <sup>d</sup>	1,079,750.12	127.41
Total	1,419,903.12	334,562.76

## **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



a. Data in this and all succeeding pages in Appendix A were provided by the Department of Energy's Manifest Information Management System as of March 1, 1999. Data originated with Chem Nuclear Systems, LLC, Envirocare of Utah, Inc., and U.S. Ecology, Inc.

d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

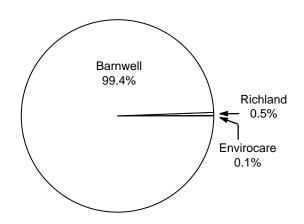
# UNITED STATES Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	194,516.12	332,779.07
Envirocare	1,079,750.12	127.41
Richland	144,767.88	1,656.28
Total	1,419,034.12	334,562.76

## VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Barnwell 13.7% Richland 10.2% Envirocare 76.1%

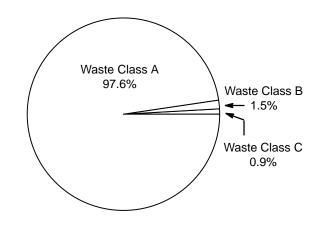
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

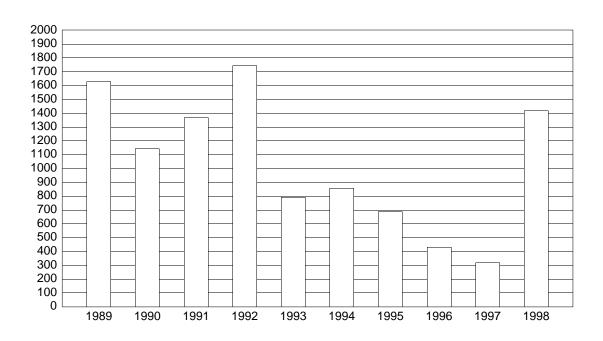
# United States Total Volume Distribution By Volume Waste Class (ft³) A 1,384,607.45 B 21,372.27 C 13,054.40 Total 1,419,034.12 Total Activity (curies) 334,562.76

#### VOLUME PERCENTAGE BY WASTE CLASS UNITED STATES TOTAL (Percentages <.1% are not displayed)

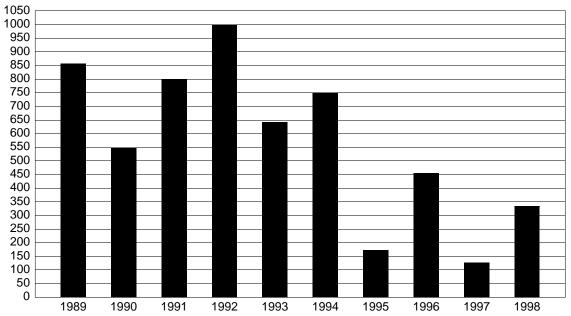


#### UNITED STATES Comparison By Year

#### **Volumes in Cubic Feet x 1000**







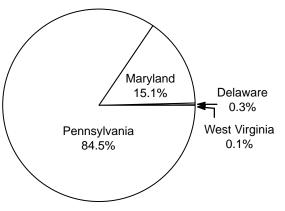
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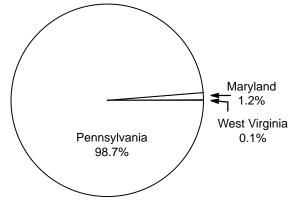
#### APPALACHIAN COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Delaware	173.79	.07
Maryland	7,604.61	531.54
Pennsylvania	42,686.01	43,690.95
West Virginia	48.02	37.33
Total	50,512.43	44,259.89

# VOLUME PERCENTAGE BY STATE (Percentages <.1% are not displayed)

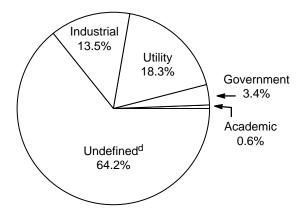
## ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)

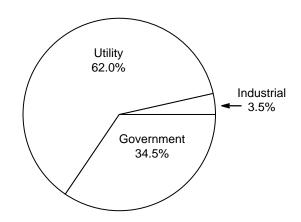




# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

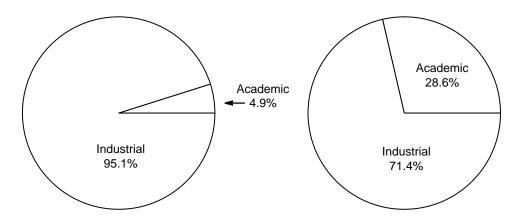
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

### DELAWARE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

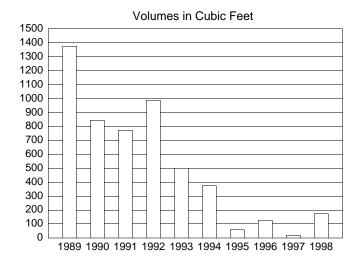
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	8.60	.02
Industrial	165.19	.05
Total	173.79	.07

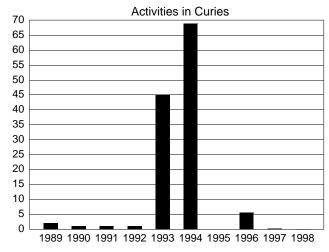
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



#### **COMPARISON BY YEAR**





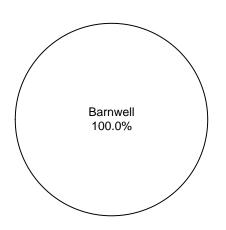
### DELAWARE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	173.79	.07
Total	173.79	.07

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Barnwell 100.0%

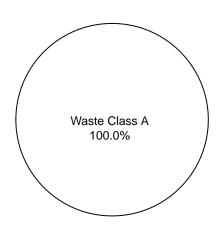
ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



**VOLUME BY WASTE CLASS** 

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	173.79
В	0
C	0
Total	173.79



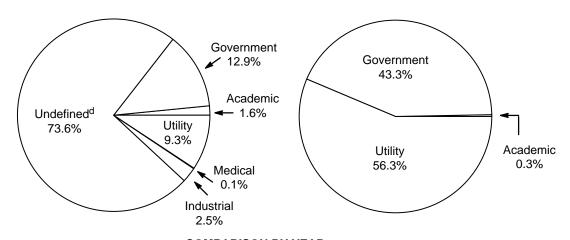
NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

MARYLAND Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

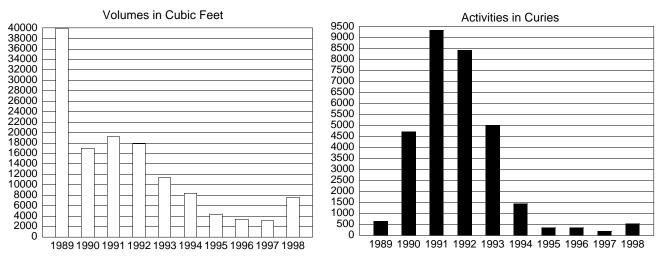
Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	120.98	1.41
Government	982.38	230.23
Industrial	188.72	.26
Medical	5.70	.27
Undefined <sup>d</sup>	5,600.43	.06
Utility	706.40	299.32
Total	7,604.61	531.54

# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



#### **COMPARISON BY YEAR**

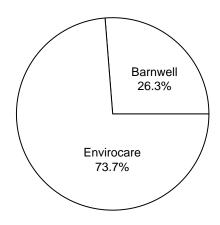


 $<sup>\</sup> d. \ The \ generation \ category \ (source) \ for \ LLW \ disposed \ at \ Envirocare \ of \ Utah \ is \ ``Undefined."$ 

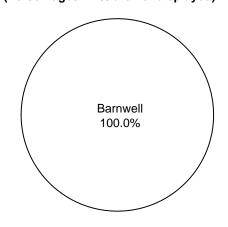
#### MARYLAND Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)	
Barnwell Envirocare	2,004.18 5,600.43	531.49	
Total	7,604.61	531.55	

## VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



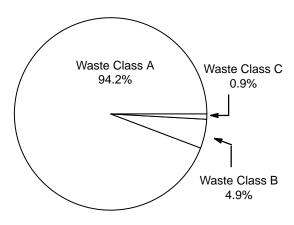
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	7,162.85
В	374.30
C	67.46
Total	7,604.61



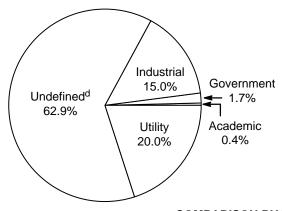
NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

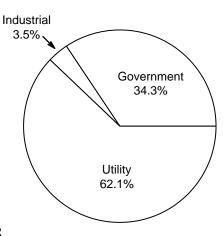
#### PENNSYLVANIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	151.99	10.95
Government	706.75	14,996.23
Industrial	6,423.02	1,544.95
Medical	3.44	.03
Undefined <sup>d</sup>	26,847.60	.17
Utility	8,553.21	27,138.63
Total	42,686.01	43,690.95

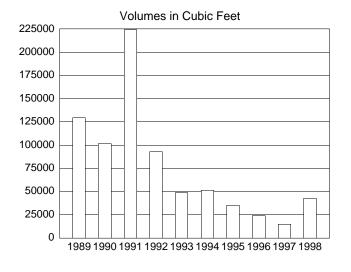
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

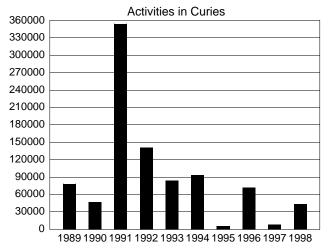
# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





#### **COMPARISON BY YEAR**





d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

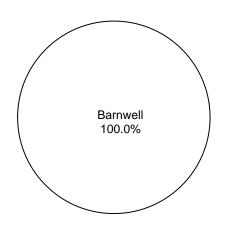
# PENNSYLVANIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)	
Barnwell	15,838.41	43,690.78	
Envirocare	26,847.60	17	
Total	42,686.01	43,690.95	

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 62.9% Barnwell 37.1%

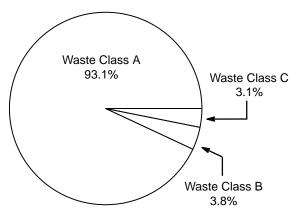
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

Waste Class	Volume (ft <sup>3</sup> )
A	39,749.00
В	1,606.33
C	1,330.68
Total	42,686.01

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

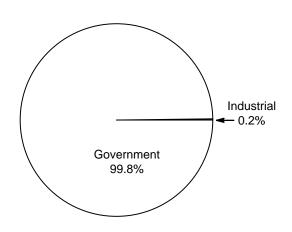
### WEST VIRGINIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	8.19	.02
Government	23.18	37.25
Industrial	16.65	.06
Total	48.02	37.33

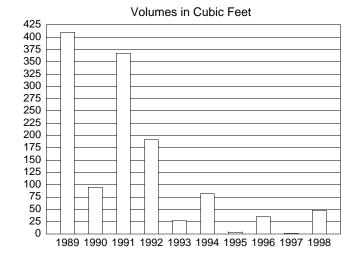
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

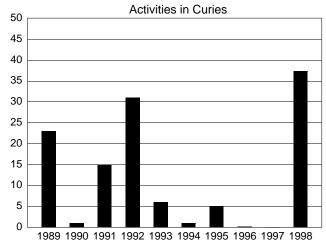
# Government 48.3% Academic 17.1% 34.6%

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



#### **COMPARISON BY YEAR**





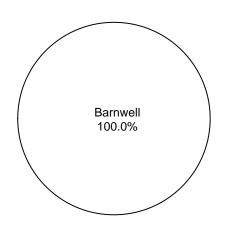
### WEST VIRGINIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)	
Barnwell	48.02	37.33	
Total	48.02	37.33	

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Barnwell 100.0%

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



**VOLUME BY WASTE CLASS** 

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

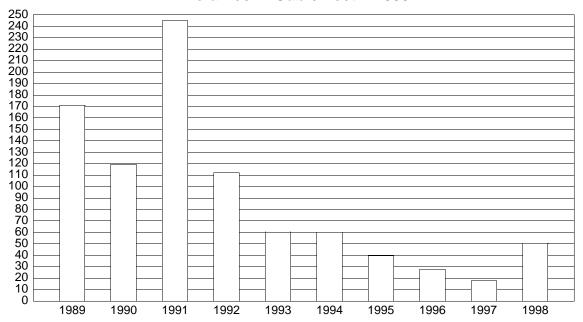
Waste Class	Volume (ft <sup>3</sup> )	Waste Class A
A	44.82	93.3%
В	3.00	
C		Waste
Total	48.02	Class B 6.3%
		Waste Class C

NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

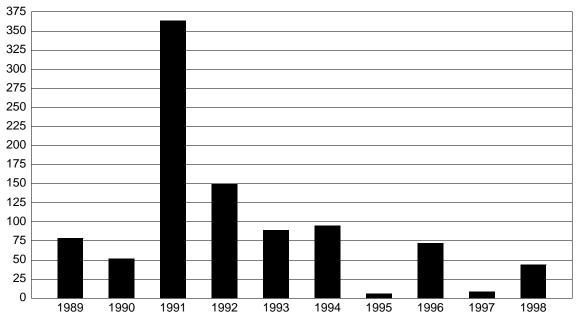
# APPALACHIAN COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Appalachian compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**

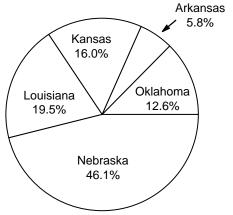


# CENTRAL COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

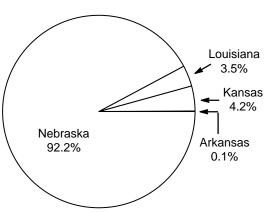
States	Volume (ft <sup>3</sup> )	Activity (curies)
Arkansas	365.64	7.25
Kansas	1,013.83	353.53
Louisiana	1,234.75	291.98
Nebraska	2,921.86	7,747.48
Oklahoma	795.98	.02
Total	6,332.06	8,400.27

## **VOLUME PERCENTAGE BY STATE** (Percentages <.1% are not displayed)

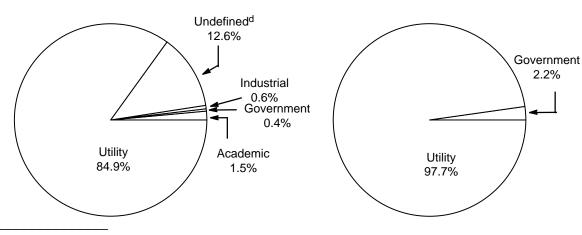
# ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)



VOLUME PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



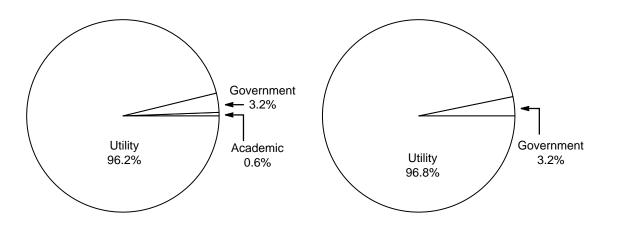
NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

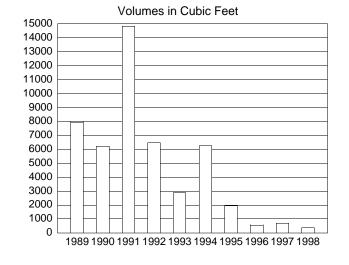
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

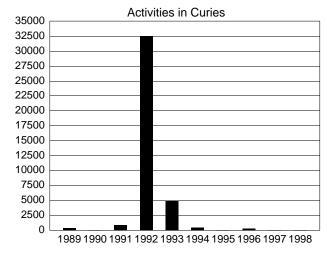
ARKANSAS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	2.38	<.01
Government	11.55	.24
Utility	351.71	7.02
Total	365.64	7.25

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





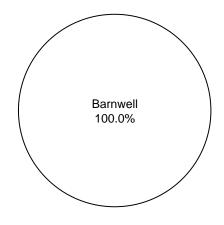


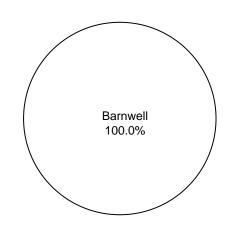
#### ARKANSAS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	365.64	7.25
Total	365.64	7.25

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

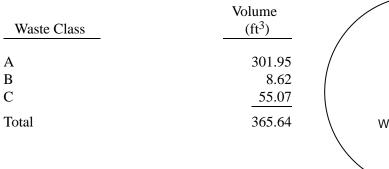
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

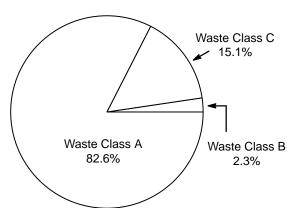




#### **VOLUME BY WASTE CLASS**

## VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



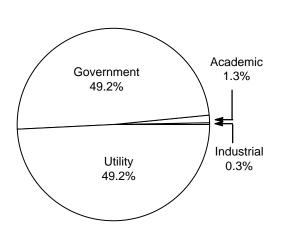


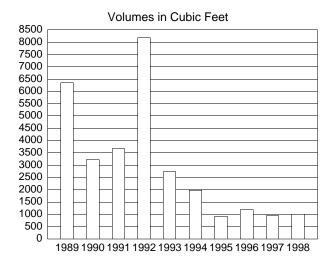
KANSAS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

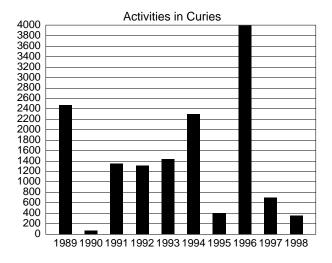
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	40.42	4.63
Government	13.60	173.85
Industrial	35.32	.95
Utility	924.49	174.11
Total	1,013.83	353.53

# Government 1.3% Academic 4.0% Industrial 3.5% 91.2%

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







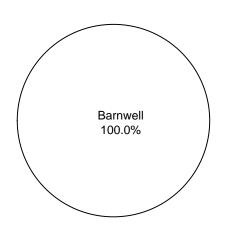
#### KANSAS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	1,013.83	353.53
Total	1,013.83	353.53

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Barnwell 100.0%

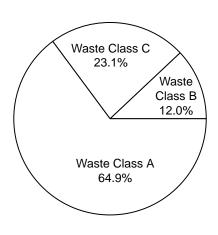
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

## VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

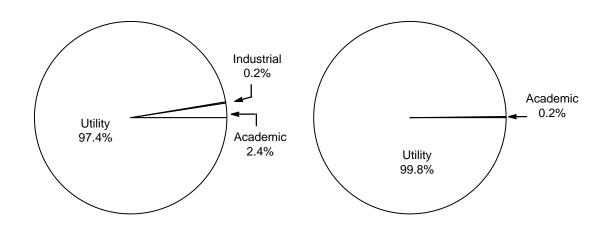
Waste Class	Volume (ft <sup>3</sup> )
A	658.33
В	121.30
C	234.20
Total	1,013.83

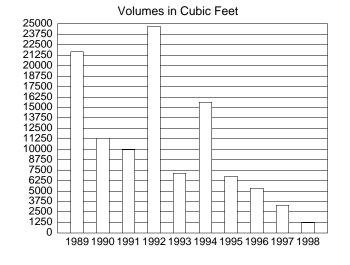


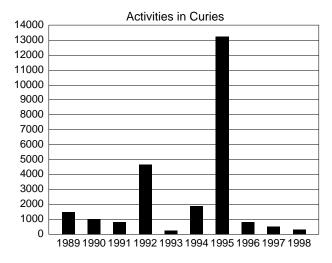
LOUISIANA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	30.03	.53
Government	.04	<.01
Industrial	2.44	.10
Utility	1,202.24	291.35
Total	1,234.75	291.98

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



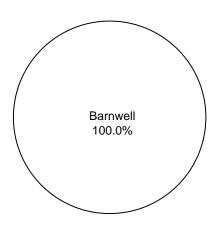




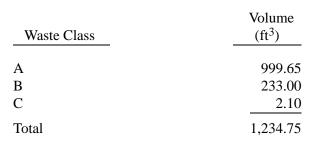
#### LOUISIANA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	1,234.75	291.98
Total	1,234.75	291.98

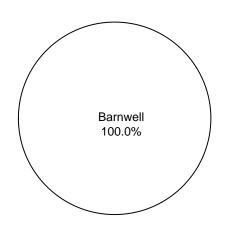
# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



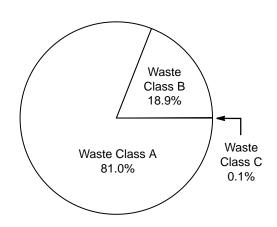
**VOLUME BY WASTE CLASS** 



# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



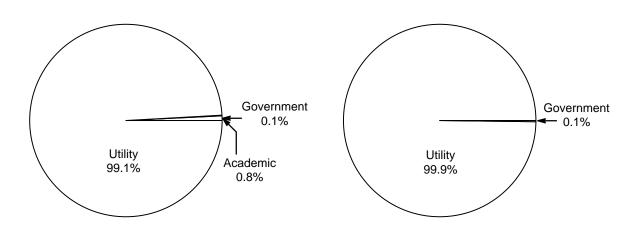
VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

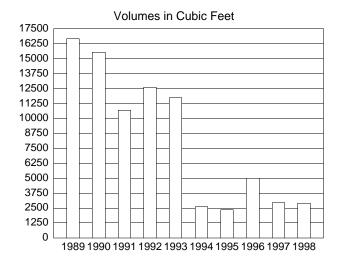


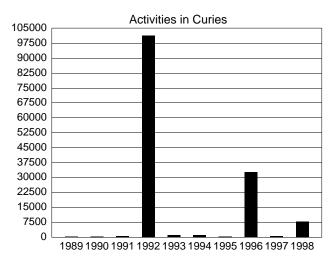
NEBRASKA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	22.73	.05
Government	1.70	11.02
Industrial	.04	<.01
Utility	2,897.39	7,736.42
Total	2,921.86	7,747.48

### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







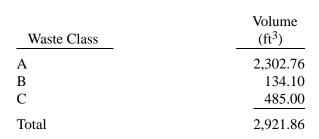
#### NEBRASKA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	2,921.86	7,747.48
Total	2,921.86	7,747.48

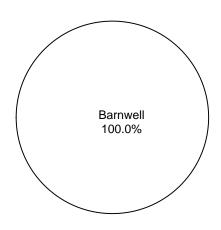
### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Barnwell 100.0%

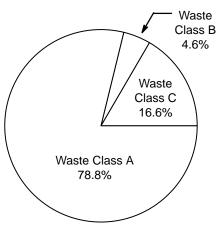
**VOLUME BY WASTE CLASS** 



### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

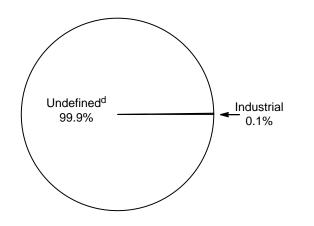


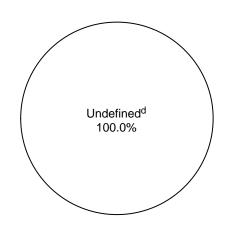
#### OKLAHOMA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

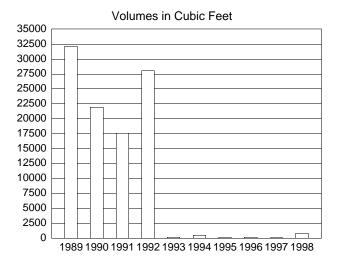
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Industrial Undefined <sup>d</sup>	.98 	<.01 .02
Total	795.98	.02

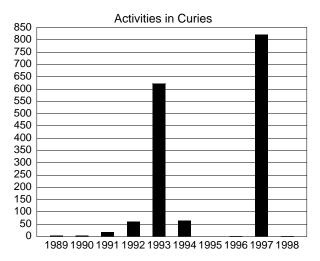
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









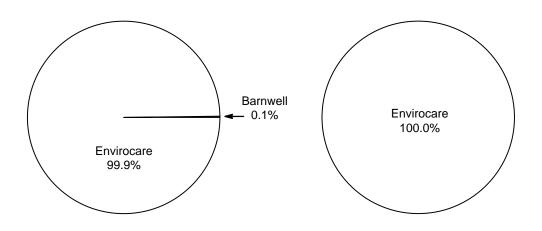
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

#### OKLAHOMA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	.98	<.01
Envirocare	795.00	.02
Total	795.98	.02

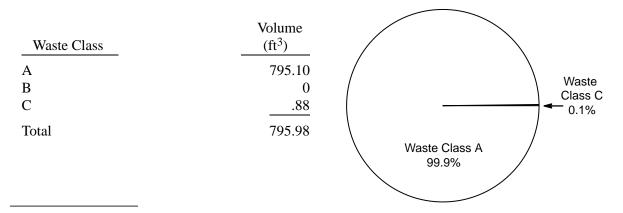
#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

## ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

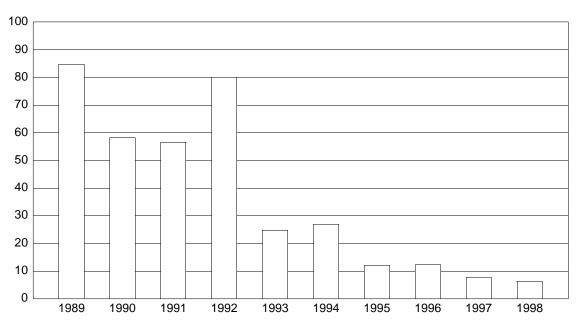
# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

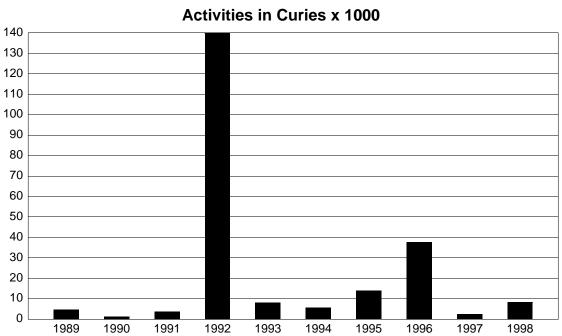


# **CENTRAL COMPACT Comparison By Year**

NOTE: The years 1989 through 1998 include all states currently being reported in the Central compact region.

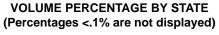
#### **Volumes in Cubic Feet x 1000**





#### CENTRAL MIDWEST COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Illinois	64,947.44	112,662.21
Kentucky	3,006.28	5.09
Total	67,953.72	112,667.30

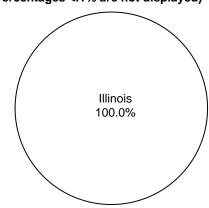


Illinois 95.6%

Kentucky

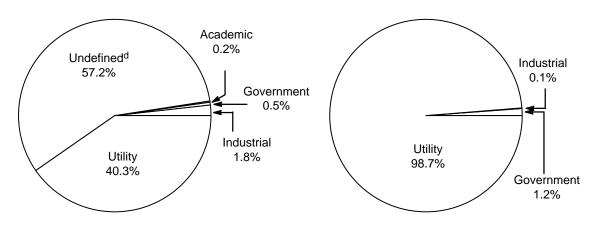
4.4%

ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)



**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)

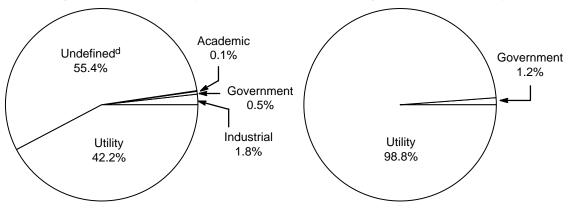


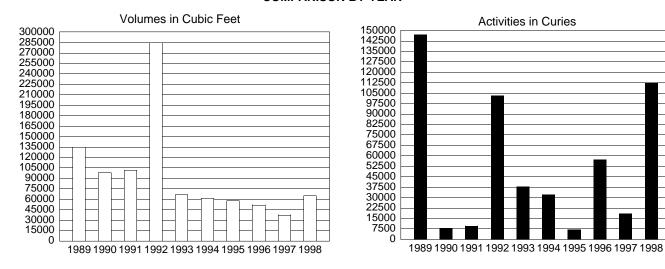
d. The generation category (source) for LLW disposed at Envirocarre of Utah is "Undefined."

ILLINOIS
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
		(**************************************
Academic	44.49	.14
Government	342.55	1,326.82
Industrial	1,166.61	63.91
Medical	18.69	.02
Undefined <sup>d</sup>	35,994.99	8.31
Utility	27,380.11	111,263.01
Total	64,947.44	112,662.21

### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





d. The generation category (source) for LLW disposed at Envirocarre of Utah is "Undefined."

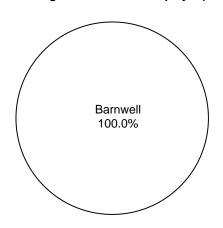
# ILLINOIS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	28,952.45 35,994.99	112,653.90 8.31
Total	64,947.44	112,662.21

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 55.4% Barnwell 44.6%

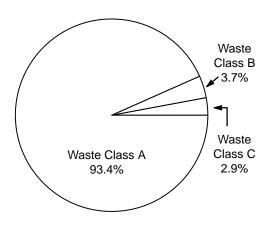
### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



**VOLUME BY WASTE CLASS** 

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	60,637.67
В	2,427.28
C	1,882.49
Total	64,947.44



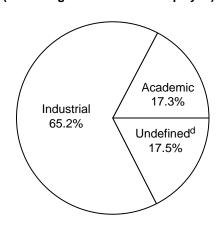
#### KENTUCKY Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

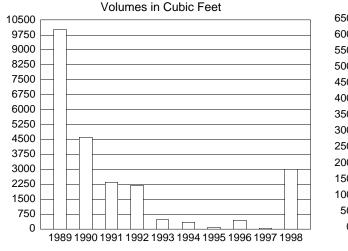
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	78.96	.88
Industrial	47.32	3.32
Undefined <sup>d</sup>	2,880.00	.89
Total	3,006.28	5.09

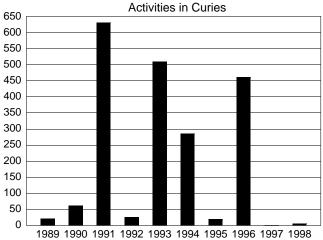
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# Undefined<sup>d</sup> 95.8% Academic 2.6%

### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







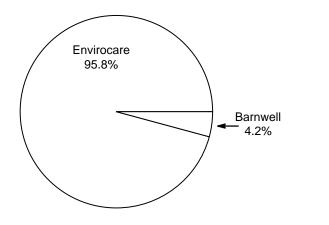
d. The generation category (source) for LLW disposed at Envirocarre of Utah is "Undefined."

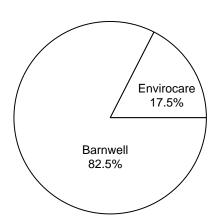
#### KENTUCKY Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	126.28 2,880.00	4.20
Total	3,006.28	5.09

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

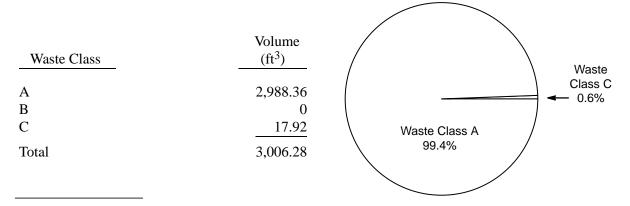
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)





#### **VOLUME BY WASTE CLASS**

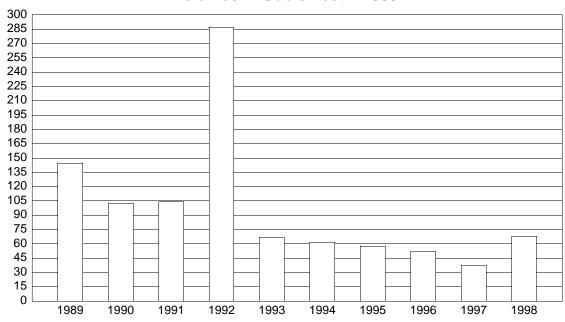
# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



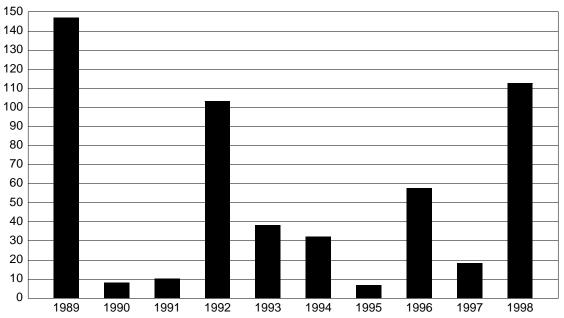
# CENTRAL MIDWEST COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Central Midwest compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**



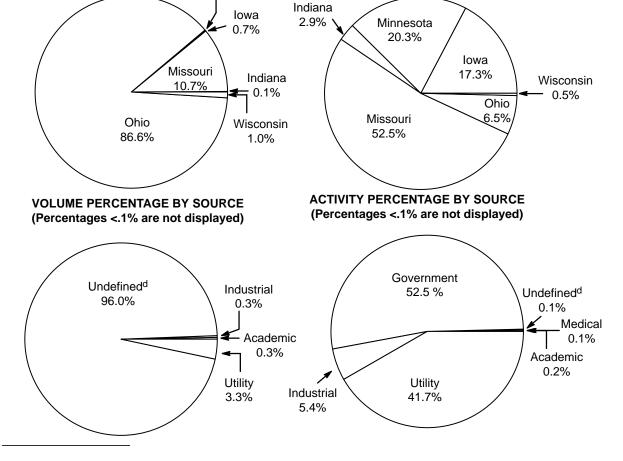
#### MIDWEST COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Indiana	73.71	45.32
Iowa	1,035.88	266.70
Minnesota	1,316.63	313.95
Missouri	16,127.81	811.53
Ohio	130,507.19	99.75
Wisconsin	1,544.07	8.05
Total	150,605.29	1,545.30

### **VOLUME PERCENTAGE BY STATE** (Percentages <.1% are not displayed)

Minnesota 0.9%

# ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)

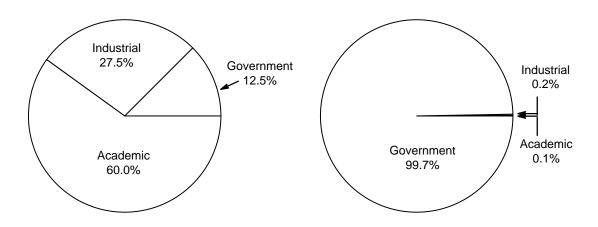


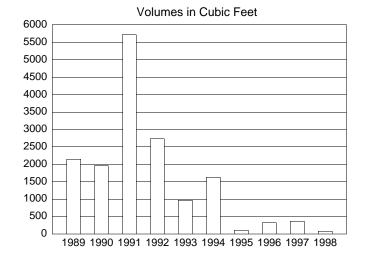
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

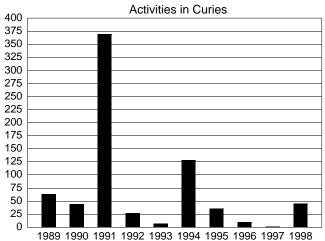
INDIANA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Volume (ft <sup>3</sup> )	Activity (curies)
44.23	.05
9.20	45.18
20.28	.09
73.71	45.32
	(ft <sup>3</sup> )  44.23  9.20  20.28

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





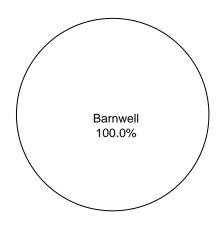


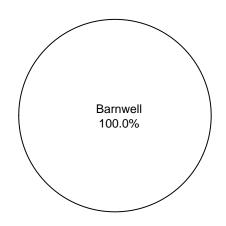
# INDIANA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	73.71	45.32
Total	73.71	45.32

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

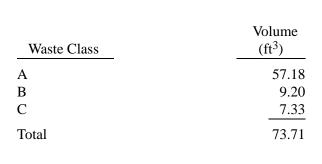
### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

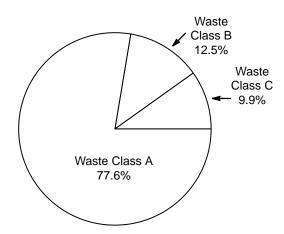




#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

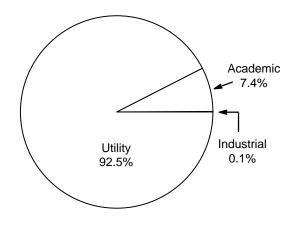


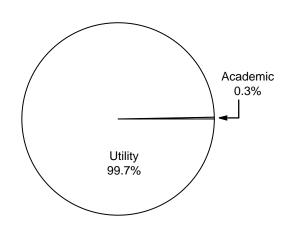


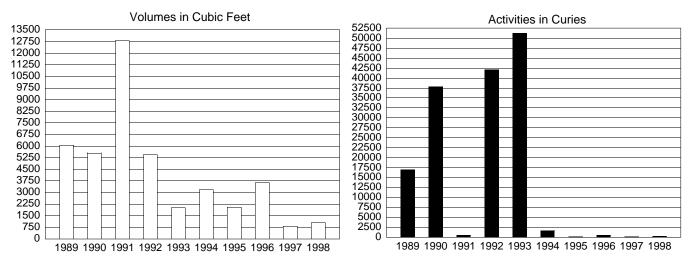
IOWA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	76.55	.93
Industrial	1.20	<.01
Utility	958.13	265.77
Total	1,035.88	266.70

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



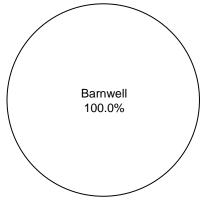




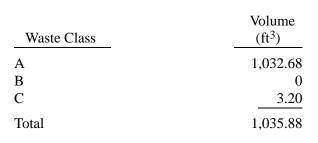
# IOWA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	1,035.88	266.70
Total	1,035.88	266.70

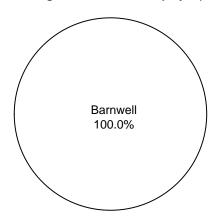
### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



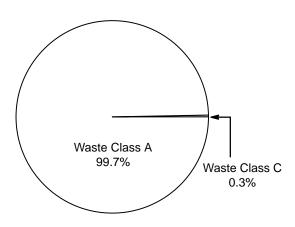
**VOLUME BY WASTE CLASS** 



### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

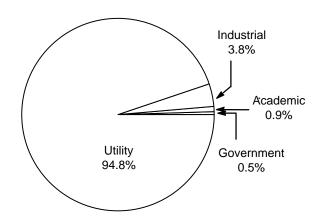


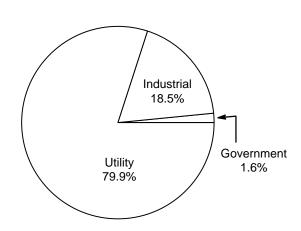
#### MINNESOTA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

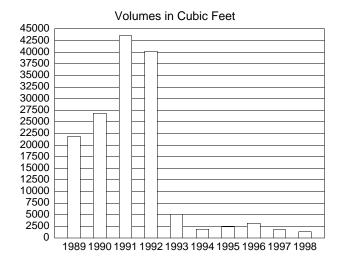
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	12.30	.14
Government	6.21	5.01
Industrial	49.77	58.11
Utility	1,248.35	250.70
Total	1,316.63	313.95

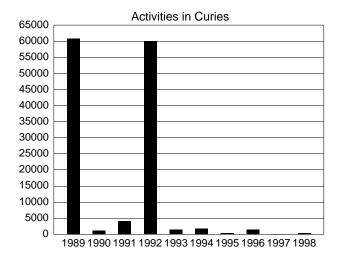
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







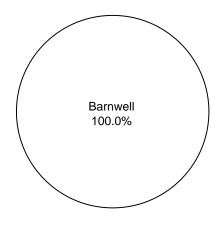


#### MINNESOTA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

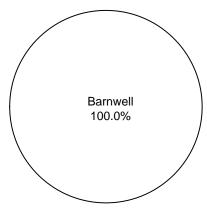
Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	1,316.63	313.95
Total	1,316.63	313.95

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

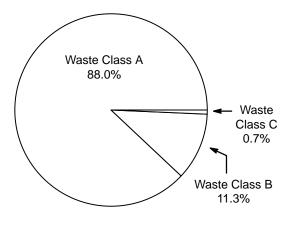


VOLUME BY WASTE CLASS



VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

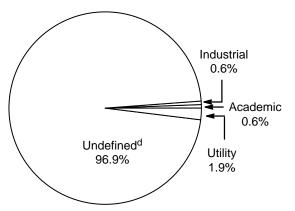
Waste Class	Volume (ft <sup>3</sup> )
A	1,158.47
В	148.13
C	10.03
Total	1,316.63

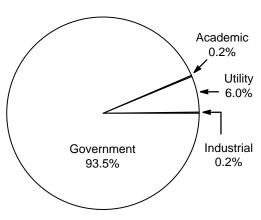


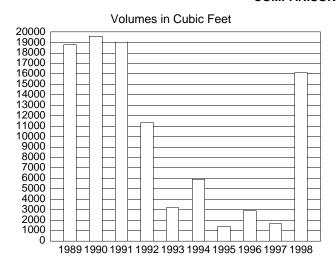
MISSOURI Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

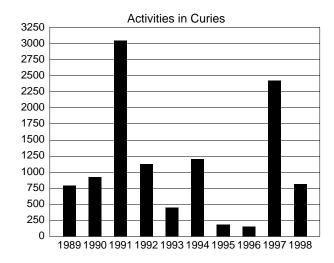
Generator	Volume	Activity
Category	$(ft^3)$	(curies)
	<del></del>	
Academic	97.30	1.52
Government	2.60	759.08
Industrial	91.33	1.46
Medical	1.91	.70
Undefined <sup>d</sup>	15,629.00	.38
Utility	305.67	48.39
Total	16,127.81	811.53

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









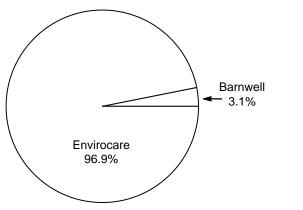
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

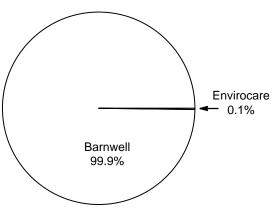
#### MISSOURI Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	498.81	811.15
Envirocare	15,629.00	38
Total	16,127.81	811.53

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)





#### **VOLUME BY WASTE CLASS**

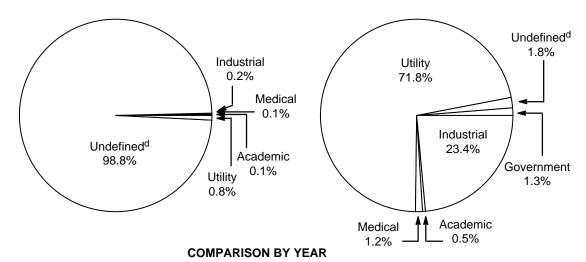
# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

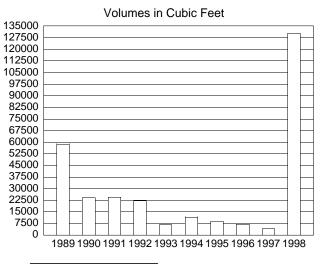
Waste Class	Volume (ft <sup>3</sup> )	Waste Class C
A B C	15,970.56 1.46 155.79	1.0%
Total	16,127.81	Waste Class A 99.0%

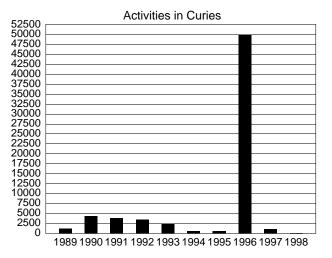
OHIO
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	158.57	.52
Government	21.15	1.31
Industrial	277.42	23.36
Medical	60.21	1.24
Undefined <sup>d</sup>	128,952.78	1.75
Utility	1,037.06	71.57
Total	130,507.19	99.75

### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





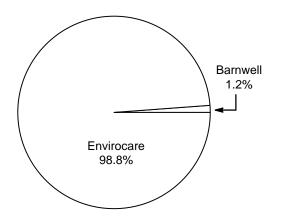


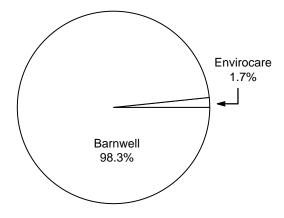
 $<sup>\</sup> d. \ The \ generation \ category \ (source) \ for \ LLW \ disposed \ at \ Envirocare \ of \ Utah \ is \ ``Undefined."$ 

OHIO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	1,554.41 128,952.78	98.00 1.75
Total	130,507.19	99.75

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

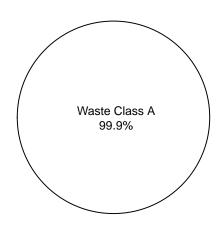




#### **VOLUME BY WASTE CLASS**

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	130,464.08
В	7.38
C	35.73
Total	130,507.19

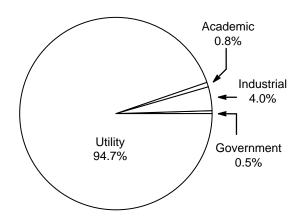


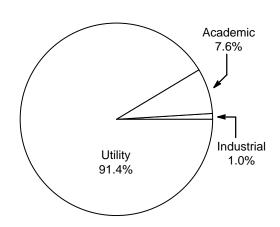
#### WISCONSIN Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

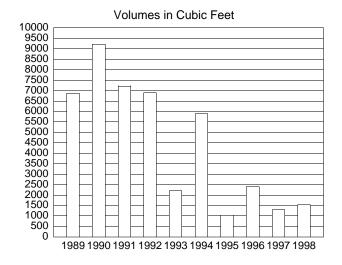
Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	12.24	.61
Government	7.80	<.01
Industrial	62.07	.08
Medical	.30	<.01
Utility	1,461.66	7.36
Total	1,544.07	8.05

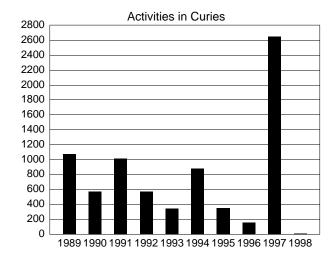
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





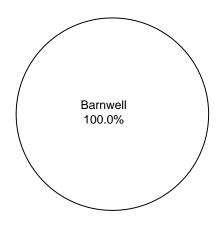




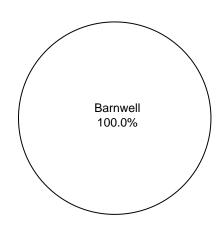
# WISCONSIN Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	1,544.07	8.05
Total	1,544.07	8.05

## VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

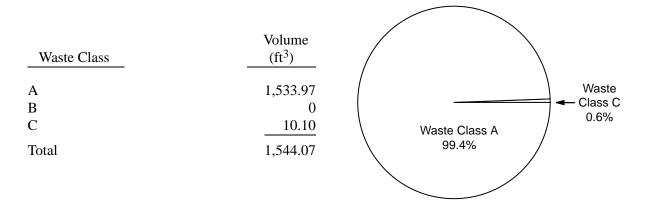


ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



**VOLUME BY WASTE CLASS** 

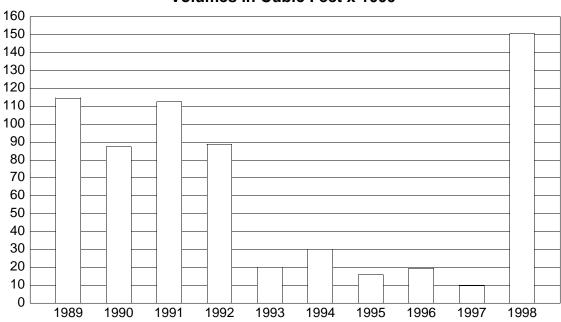
VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



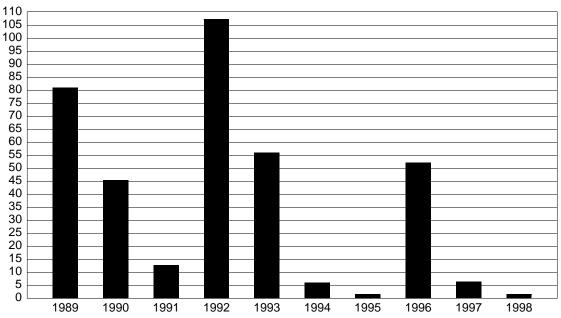
# MIDWEST COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Midwest compact region.





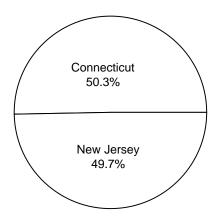
#### **Activities in Curies x 1000**



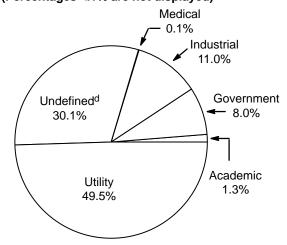
#### NORTHEAST COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Connecticut	8,653.00	223.28
New Jersey	8,553.44	21,182.92
Total	17,206.44	21,406.20

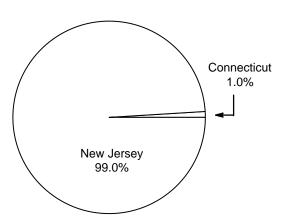
#### **VOLUME PERCENTAGE BY STATE** (Percentages <.1% are not displayed)



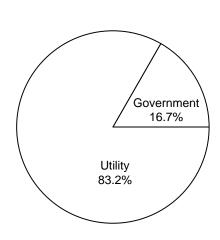
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)



ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)



ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



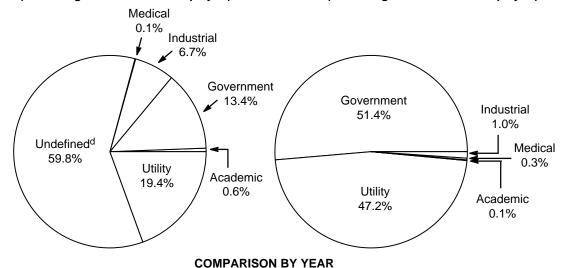
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

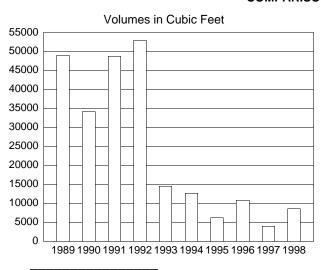
#### CONNECTICUT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

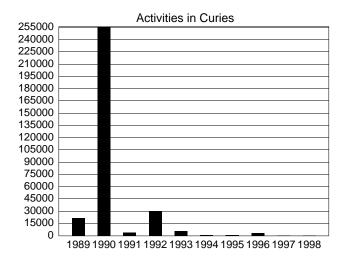
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	54.95	.25
Government	1,159.06	114.82
Industrial	579.38	2.13
Medical	5.55	.57
Undefined <sup>d</sup>	5,172.70	.20
Utility	1,681.36	105.31
Total	8,653.00	223.28

# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

# CONNECTICUT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	3,480.03	223.08
Envirocare	5,172.70	.20
Total	8,653.00	223.28

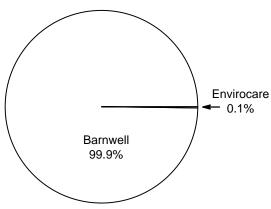
### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 59.8% Barnwell 40.2%

**VOLUME BY WASTE CLASS** 

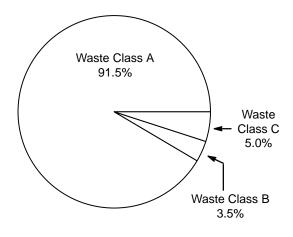
# (Percentages <.1% are not displayed)

**ACTIVITY PERCENTAGE BY DISPOSAL SITE** 



# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	7,916.08
В	306.50
C	430.42
Total	8,653.00

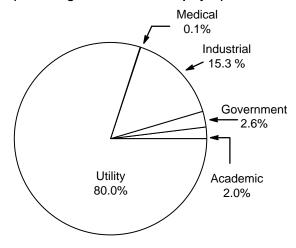


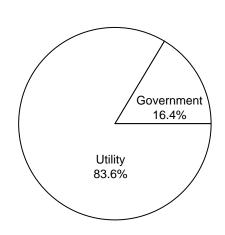
#### NEW JERSEY Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

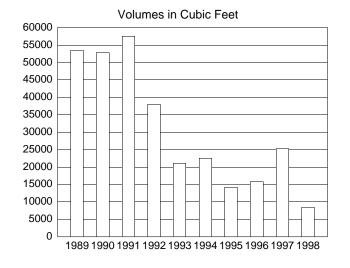
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	174.44	.32
Government	219.90	3,470.01
Industrial	1,306.41	5.48
Medical	9.50	.97
Utility	6,843.19	17,706.15
Total	8,553.44	21,182.92

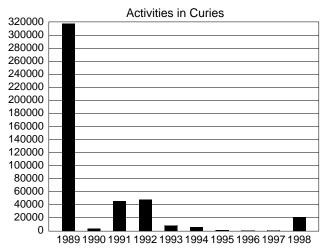
### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





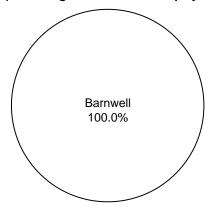




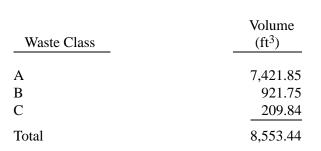
#### NEW JERSEY Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	8,553.44	21,182.92
Total	8,553.44	21,182.92

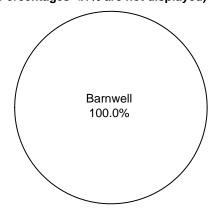
# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



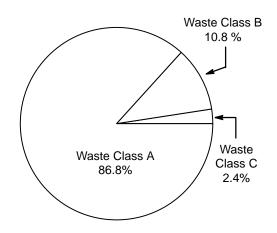
**VOLUME BY WASTE CLASS** 



# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



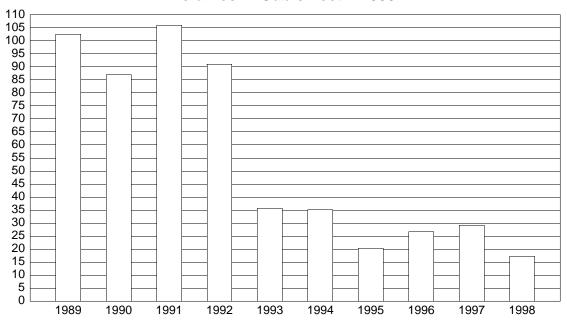
# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



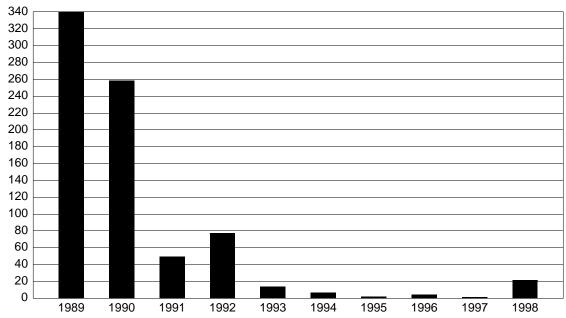
# NORTHEAST COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Northeast compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**

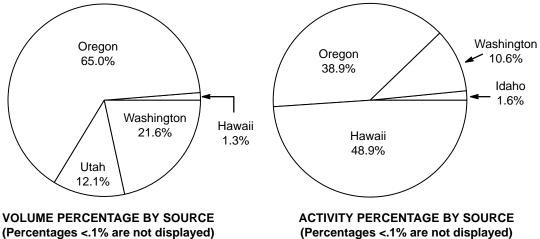


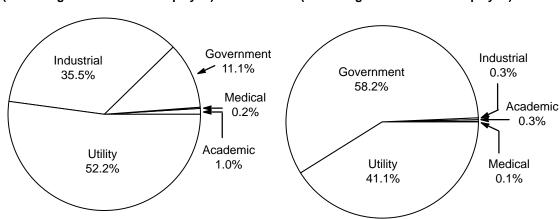
#### NORTHWEST COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Alaska	0	0
Hawaii	1,809.13	692.31
Idaho	6.29	22.04
Montana	8.81	.03
Oregon	92,742.95	551.06
Utah	17,204.38	2.00
Washington	30,809.97	149.84
Wyoming	4.10	.03
Total	142,585.63	1,417.30

# VOLUME PERCENTAGE BY STATE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)



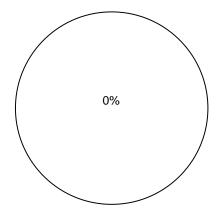


#### ALASKA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

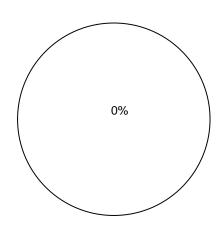
Generator Volume Activity
Category (ft<sup>3</sup>) (curies)

No LLW Disposal Reported for 1998

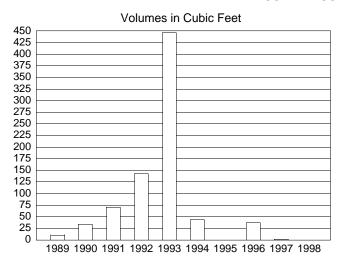
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

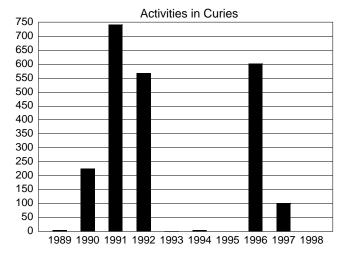


### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



#### **COMPARISON BY YEAR**



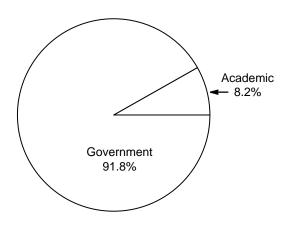


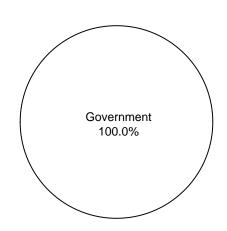
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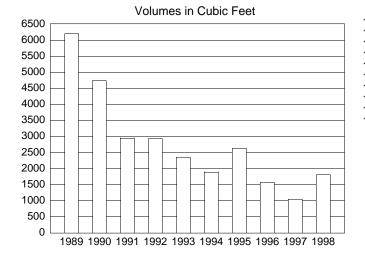
HAWAII Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

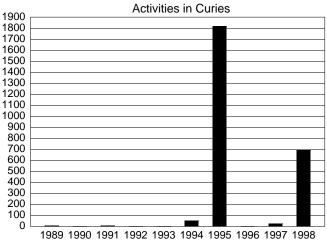
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	147.40	<.01
Government	1,660.39	692.30
Industrial	1.34	<.01
Total	1,809.13	692.31

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







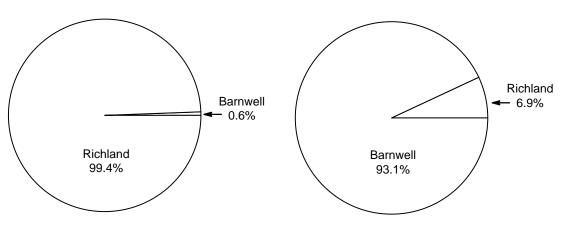


#### HAWAII Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Richland	11.20 1,797.93	644.80 47.51
Total	1,809.13	692.31

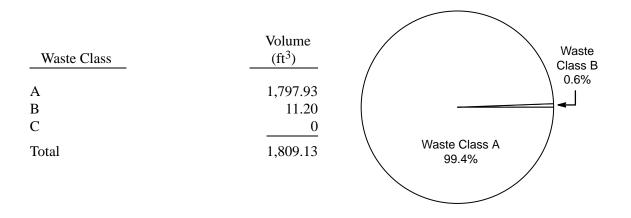
# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



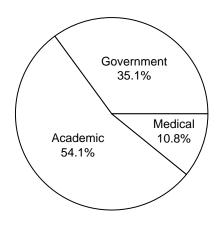
#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

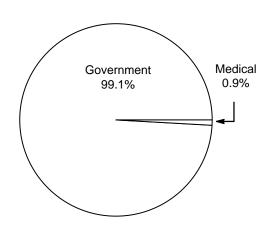


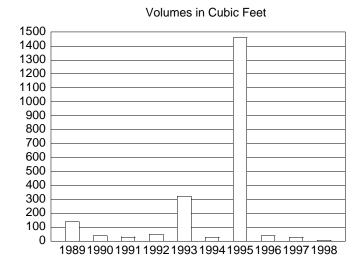
IDAHO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

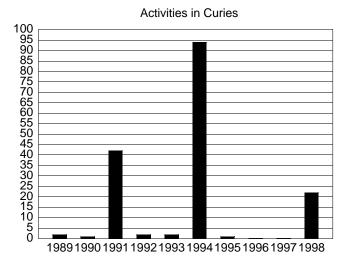
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	3.40	<.01
Government	2.21	21.84
Medical	.68	.20
Total	6.29	22.04



# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



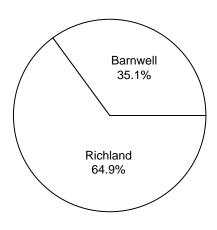




# IDAHO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

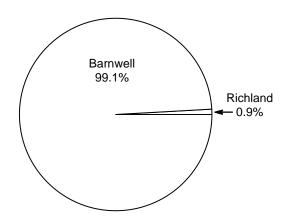
Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	2.21	21.84
Richland	4.08	.20
Total	6.29	22.04

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



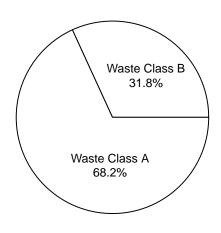
**VOLUME BY WASTE CLASS** 

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	4.29
В	2.00
C	0
Total	6.29

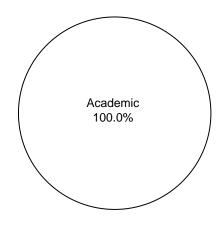


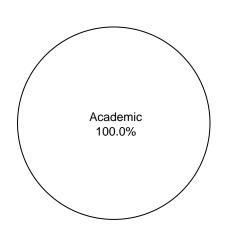
#### MONTANA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

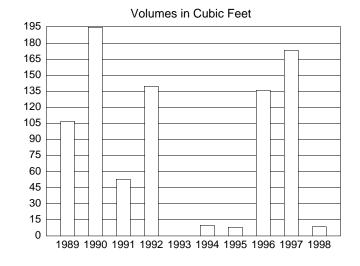
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	8.81	.03
Total	8.81	.03

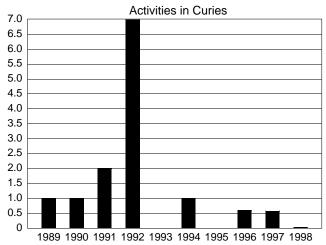
# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









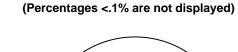
#### MONTANA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Richland	8.81	.03
Total	8.81	.03

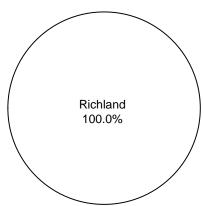
# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

Richland 100.0%

**VOLUME BY WASTE CLASS** 

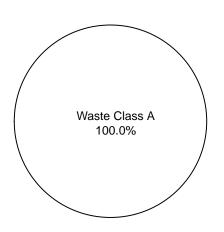


**ACTIVITY PERCENTAGE BY DISPOSAL SITE** 



VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

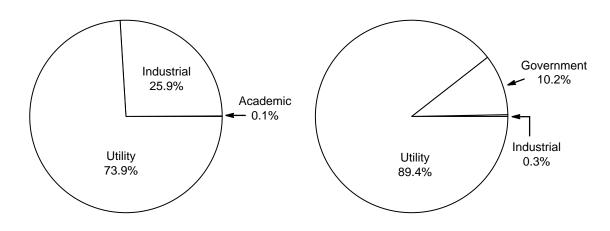
Waste Class	Volume (ft <sup>3</sup> )
A	8.81
В	0
C	0
Total	8.81

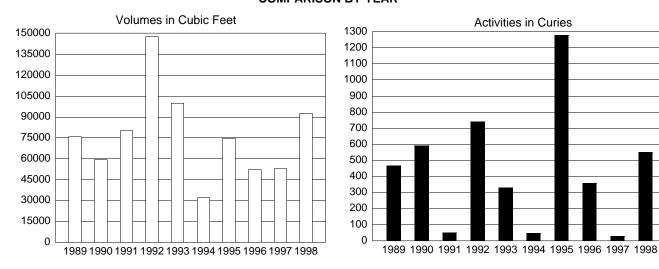


OREGON
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

Generator	Volume	Activity
Category	$(ft^3)$	(curies)
	120.60	22
Academic	129.68	.32
Government	2.80	56.57
Industrial	24,049.35	1.64
Medical	32.27	.01
Utility	68,528.85	492.52
Total	92,742.95	551.06

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



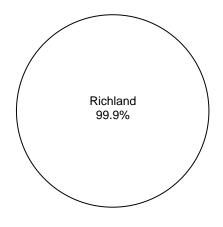


# OREGON Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

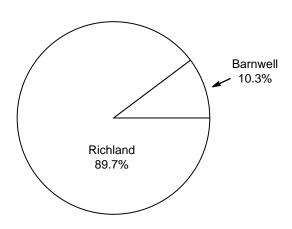
Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Richland	1.00 92,741.95	56.57 494.49
Total	92,742.95	551.06

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

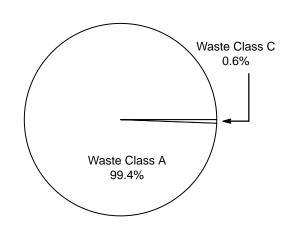


**VOLUME BY WASTE CLASS** 



VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

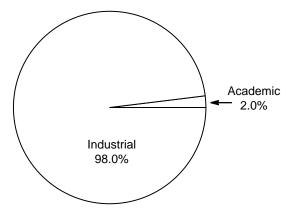
Waste Class	Volume (ft <sup>3</sup> )
A	92,169.95
В	52.20
C	520.80
Total	92,742.95

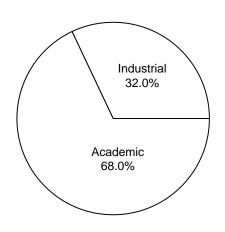


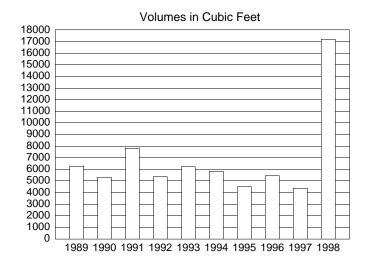
UTAH
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

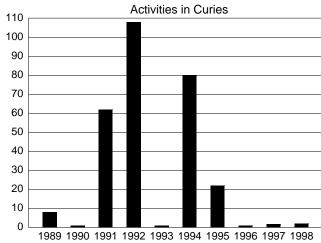
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	344.96	1.36
Industrial	16,857.54	.64
Medical	1.88	<.01
Total	17,204.38	2.00

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







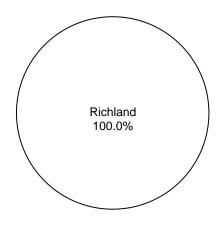


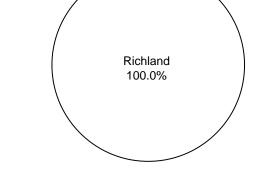
# UTAH Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Richland	17,204.38	2.00
Total	17,204.38	2.00

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

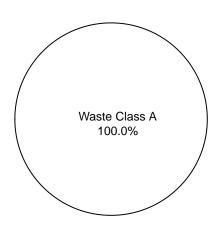




#### **VOLUME BY WASTE CLASS**

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	17,204.38
В	0
C	0
Total	17,204.38

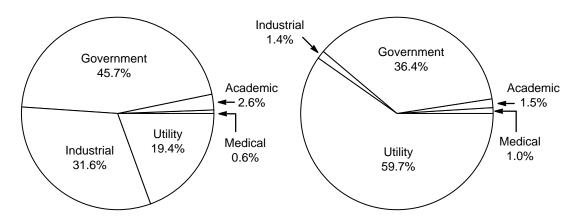


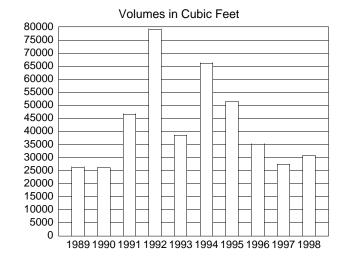
# WASHINGTON Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

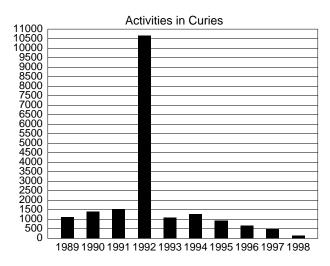
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	813.73	2.27
Government	14,089.44	54.49
Industrial	9,745.33	2.10
Medical	181.43	1.58
Utility	5,980.04	89.40
Total	30,809.97	149.84

# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







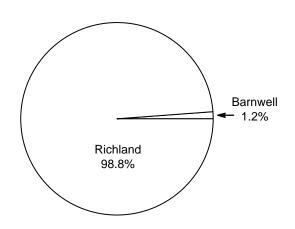
# WASHINGTON Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Richland	2.00 30,807.97	1.86 147.98
Total	30,809.97	149.84

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Richland 99.9%

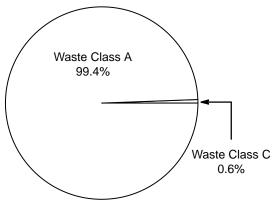
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	30,637.97
В	1.00
C	171.00
Total	30,809.97

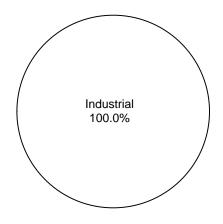


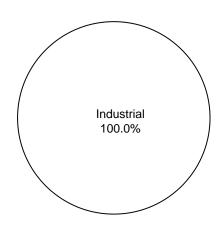
#### WYOMING Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

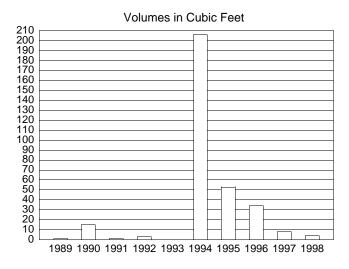
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Industrial	4.10	.03
Total	4.10	.03

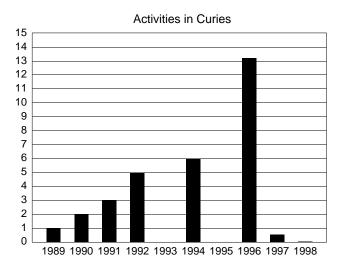
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









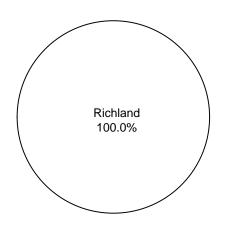
# WYOMING Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Richland	4.10	.03
Total	4.10	.03

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Richland 100.0%

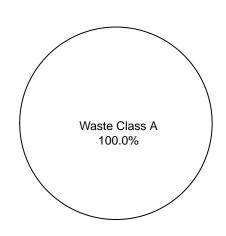
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

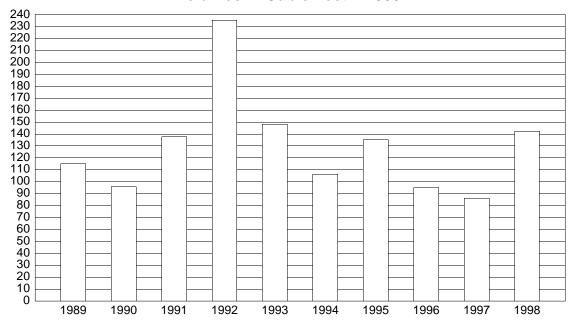
Waste Class	Volume (ft <sup>3</sup> )
A	4.10
В	0
C	0
Total	4.10



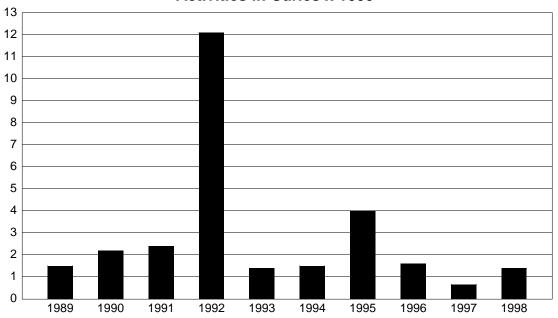
# NORTHWEST COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Northwest compact region.

#### Volumes in Cubic Feet x 1000



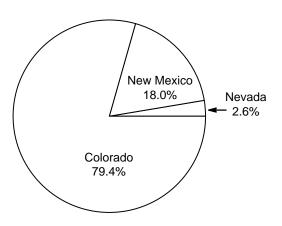
#### **Activities in Curies x 1000**



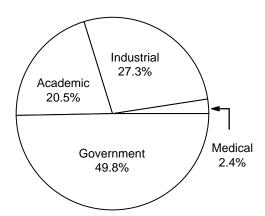
#### ROCKY MOUNTAIN COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Colorado	1,749.18	974.60
Nevada	56.44	.02
New Mexico	396.34	12.31
Total	2,201.96	986.93

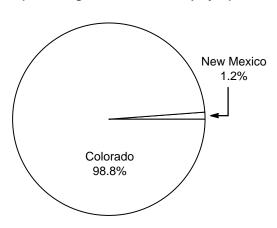
# VOLUME PERCENTAGE BY STATE (Percentages <.1% are not displayed)



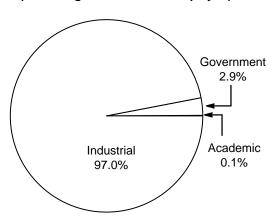
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)



# ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)



# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)

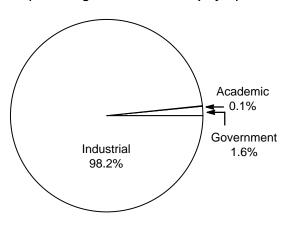


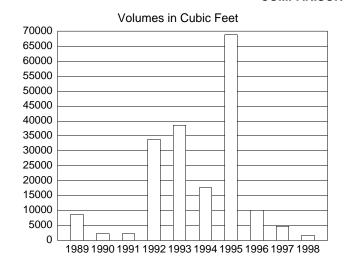
COLORADO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

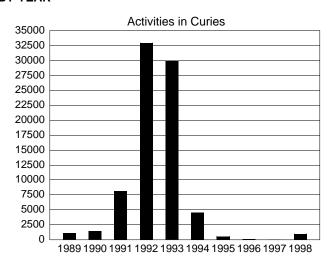
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	391.86	1.20
Government	1,095.88	16.02
Industrial	208.63	957.29
Medical	52.81	.09
Total	1,749.18	974.60

# Industrial 11.9% Academic 22.4% Government 62.7% Medical 3.0%

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





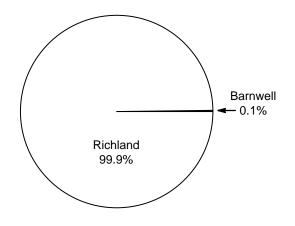


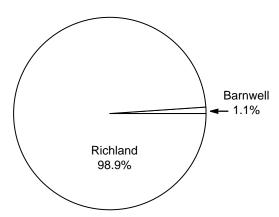
#### COLORADO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Richland	2.40 1,746.78	10.59 964.01
Total	1,749.18	974.60

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

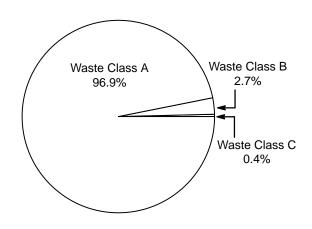




#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

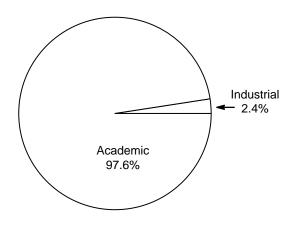
Waste Class	Volume (ft <sup>3</sup> )
A	1,694.28
В	47.00
C	7.90
Total	1,749.18

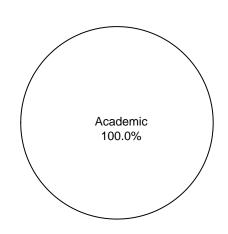


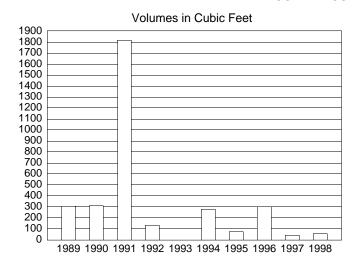
NEVADA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

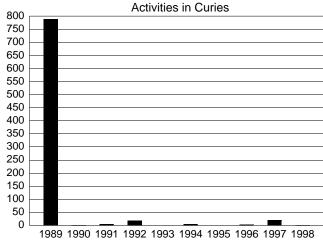
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	55.10	.02
Industrial	1.34	<.01
Total	56.44	.02

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







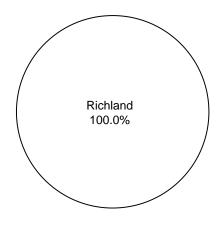


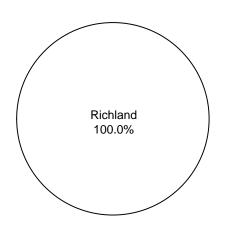
#### NEVADA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Richland	56.44	.02
Total	56.44	.02

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

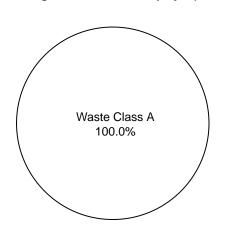




#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	56.44
В	0
C	0
Total	56.44

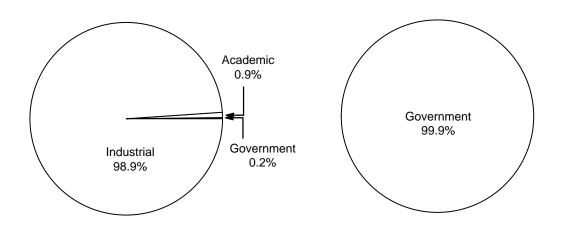


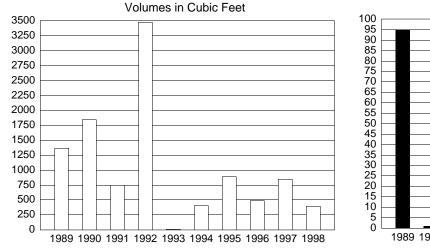
#### NEW MEXICO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

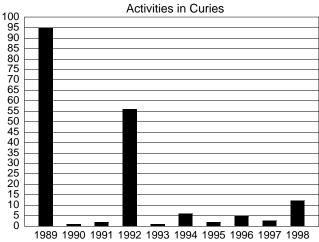
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	3.40	<.01
Government	.90	12.30
Industrial	392.04	<.01
Total	396.34	12.30

**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





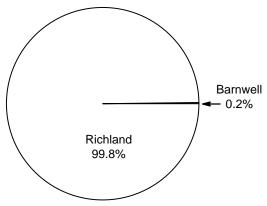


#### NEW MEXICO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

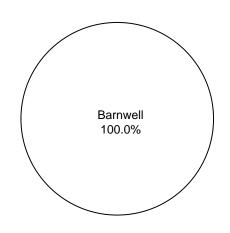
Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Richland	.90 395.44	12.30 <.01
Total	396.34	12.30

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

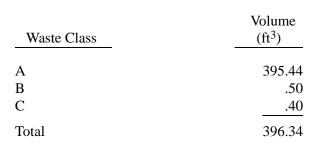
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

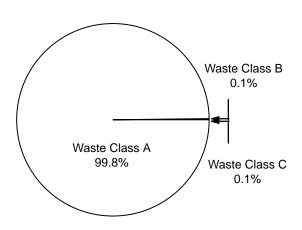


VOLUME BY WASTE CLASS



VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

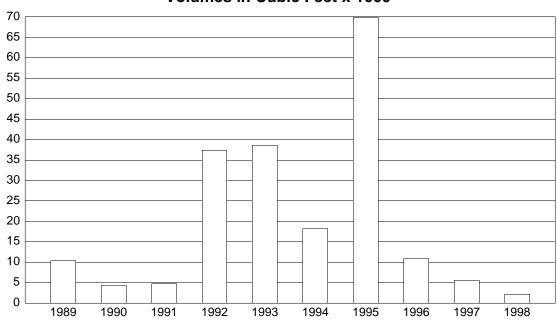




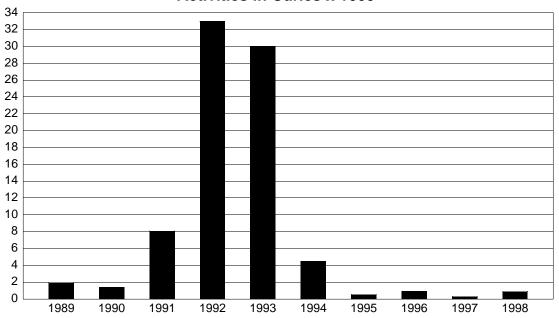
# ROCKY MOUNTAIN COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Rocky Mountain compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**

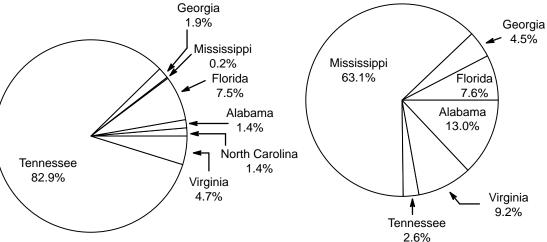


#### SOUTHEAST COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

	Volume	Activity
States	$(ft^3)$	(curies)
Alabama	7,552.41	3,583.19
Florida	39,531.35	2,088.63
Georgia	9,916.08	1,232.77
Mississippi	776.66	17,375.75
North Carolina	7,390.20	4.40
Tennessee	435,276.41	723.07
Virginia	24,752.62	2,538.10
Total	525,195.73	27,545.91

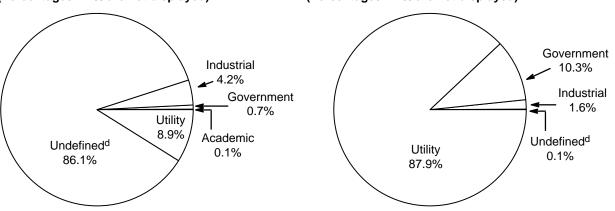
# **VOLUME PERCENTAGE BY STATE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)



# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



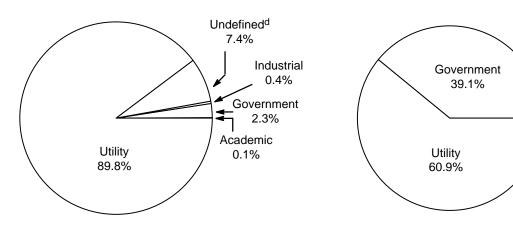
NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

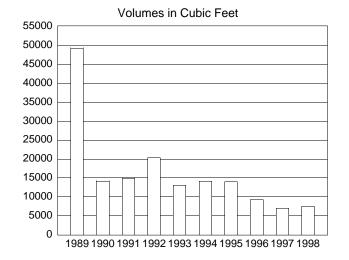
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

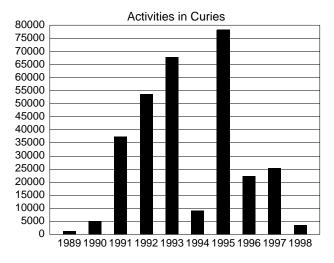
ALABAMA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	9.18	.03
Government	174.80	1,401.28
Industrial	33.48	.91
Undefined <sup>d</sup>	558.03	.05
Utility	6,776.92	2,180.92
Total	7,552.41	3,583.19

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







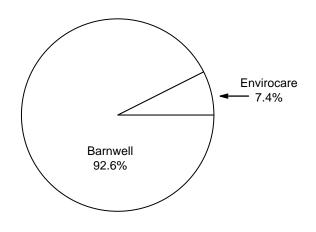
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

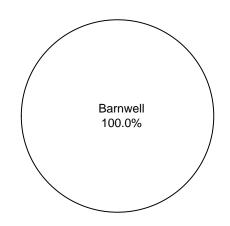
#### ALABAMA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	6,994.38 558.03	3,583.14 .05
Total	7,552.41	3,583.19

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

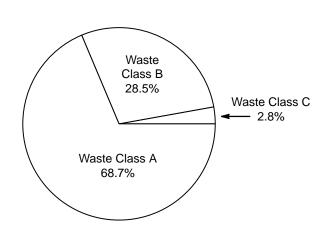




#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

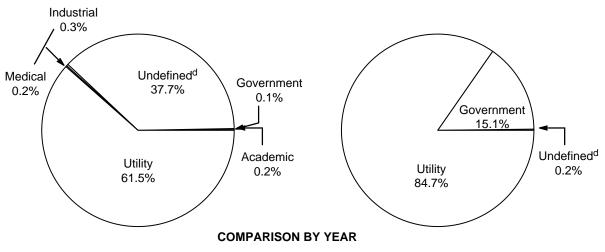
Waste Class	Volume (ft <sup>3</sup> )
A	5,189.42
В	2,153.24
C	209.75
Total	7,552.41

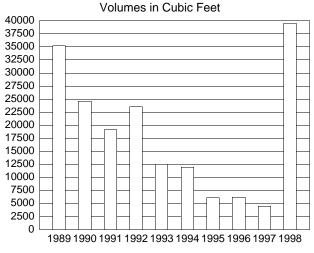


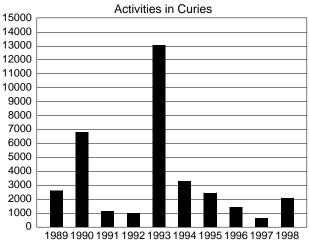
FLORIDA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	91.35	.15
Government	41.99	314.71
Industrial	123.29	.83
Medical	93.16	.13
Undefined <sup>d</sup>	14,889.26	4.82
Utility	24,292.30	1,767.99
Total	39,531.35	2,088.63

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







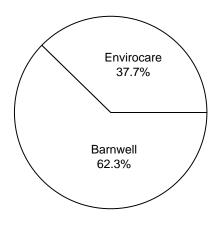
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

#### FLORIDA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

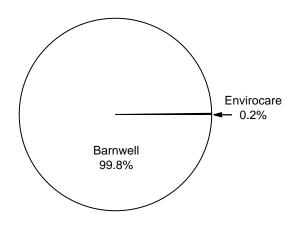
Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	24,642.09	2,083.81
Envirocare	14,889.26	4.82
Total	39,531.35	2,088.63

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

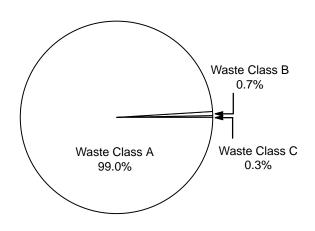


**VOLUME BY WASTE CLASS** 



# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

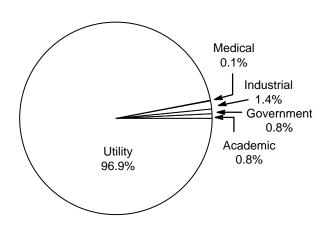
Waste Class	Volume (ft <sup>3</sup> )
A	39,139.49
В	260.32
C	131.54
Total	39,531.35

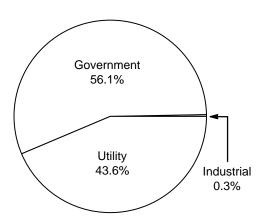


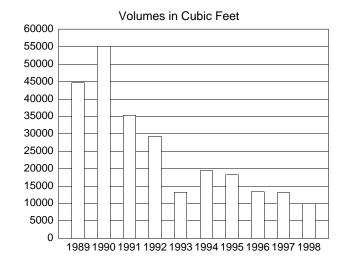
GEORGIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

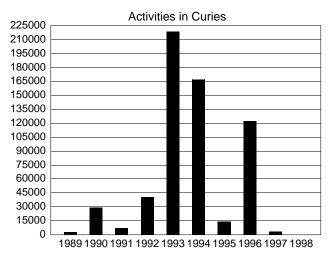
Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	77.60	.18
Government	79.11	691.78
Industrial	134.30	3.88
Medical	9.30	.03
Utility	9,615.77	536.90
Total	9,916.08	1,232.77

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





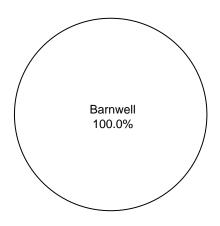




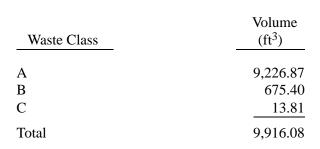
#### GEORGIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	9,916.08	1,232.77
Total	9,916.08	1,232.77

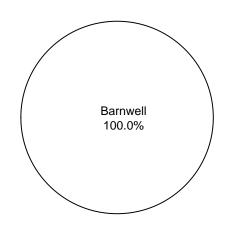
# VOLUME PERCENTAGE BY DISPOSAL SITE (percentages <.1% are not displayed)



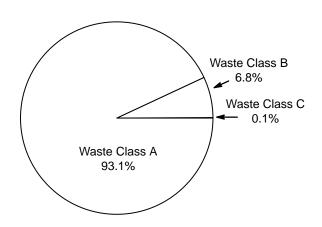
#### **VOLUME BY WASTE CLASS**



# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



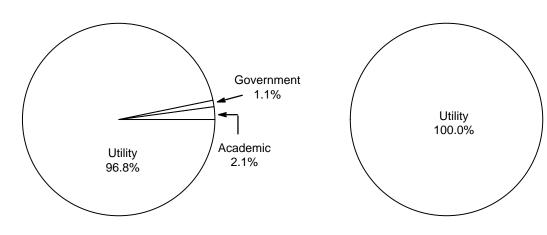
NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

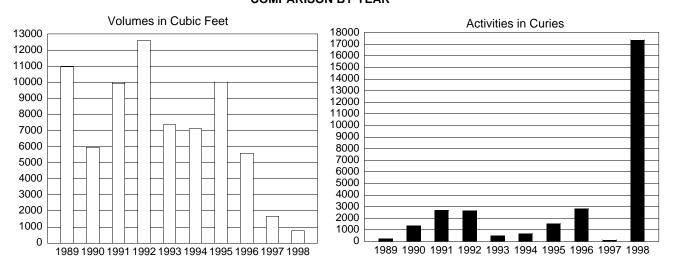
#### MISSISSIPPI Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	16.35	.08
Government	8.23	.12
Utility	752.08	17,375.55
Total	776.66	17,375.75

# **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

# ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



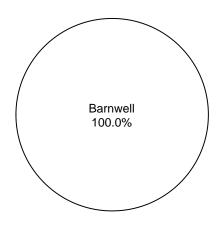


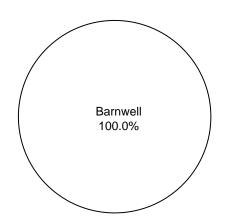
#### MISSISSIPPI Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	776.66	17,375.75
Total	776.66	17,375.75

# VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

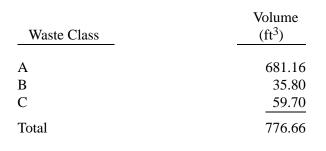
# ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

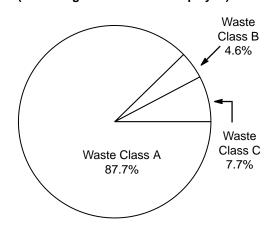




#### **VOLUME BY WASTE CLASS**

# VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



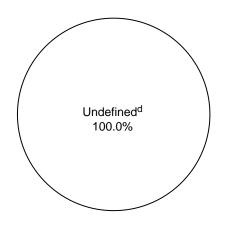


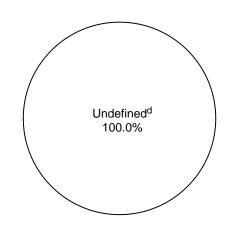
#### NORTH CAROLINA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

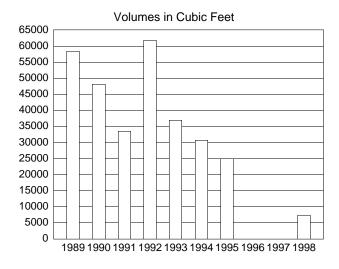
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Undefined <sup>d</sup>	7,390.20	4.40
Total	7,390.20	4.40

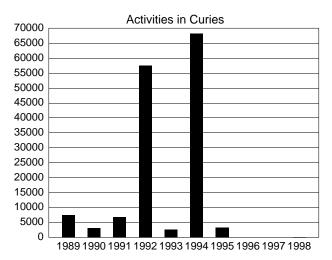
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







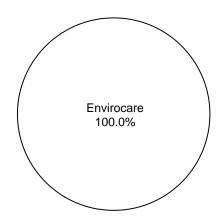


d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

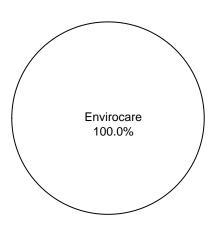
#### NORTH CAROLINA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Envirocare	7,390.20	4.40
Total	7,390.20	4.40

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



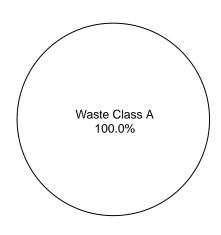
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

Waste Class	Volume (ft <sup>3</sup> )
A	7,390.20
В	0
C	0
Total	7,390.20

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

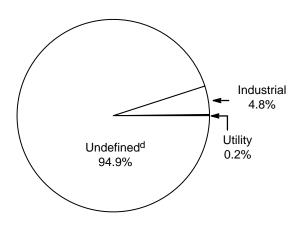


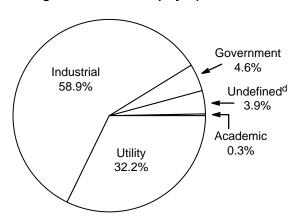
TENNESSEE
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

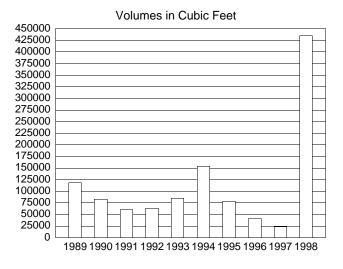
Generator	Volume	Activity
Category	$(ft^3)$	(curies)
	· · · · · · · · · · · · · · · · · · ·	
Academic	250.88	2.35
Government	15.00	33.47
Industrial	20,908.89	426.10
Medical	4.73	.02
Undefined <sup>d</sup>	413,034.08	28.33
Utility	1,063.43	232.81
Total	435,276.41	723.07

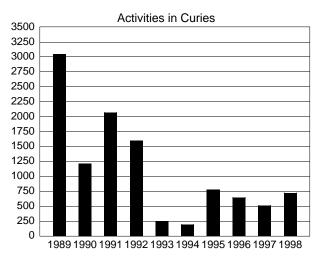
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

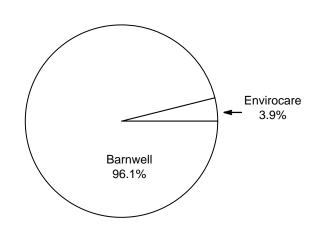
## TENNESSEE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	22,242.33	694.74
Envirocare	413,034.08	28.33
Total	435,276.41	723.07

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 94.9%

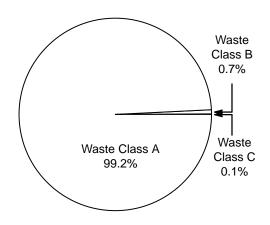
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

Waste Class	Volume (ft <sup>3</sup> )
A	431,760.79
В	3,305.48
C	210.14
Total	435,276.41

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

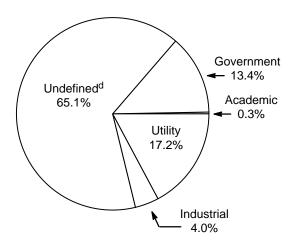


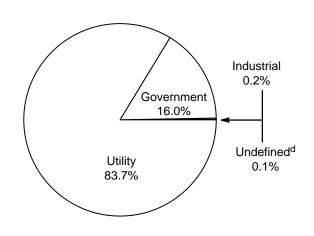
VIRGINIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

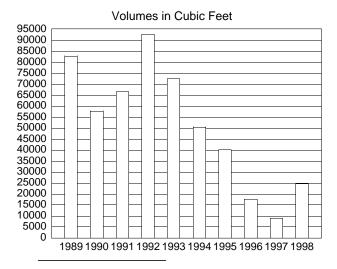
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
<u>Cutegory</u>		(curies)
Academic	61.51	.21
Government	3,326.31	405.04
Industrial	985.47	5.93
Undefined <sup>d</sup>	16,121.88	2.24
Utility	4,257.45	2,124.67
Total	24,752.62	2,538.10

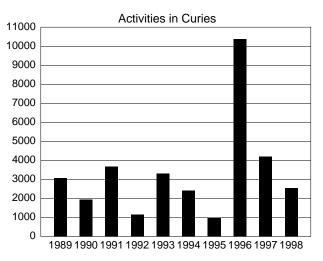
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







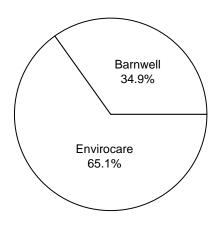


d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

#### **VIRGINIA Low-Level Radioactive Wastes Received** at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	8,630.74	2,535.85
Envirocare	16,121.88	2.24
Total	24,752.62	2,538.10

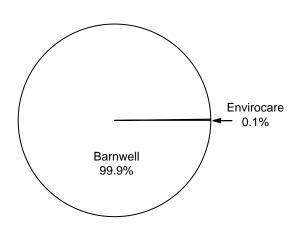
#### **VOLUME PERCENTAGE BY DISPOSAL SITE** (Percentages <.1% are not displayed)



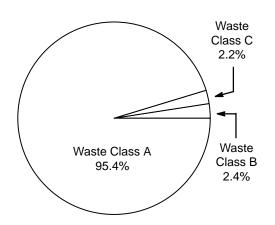
#### **VOLUME BY WASTE CLASS**



#### **ACTIVITY PERCENTAGE BY DISPOSAL SITE** (Percentages <.1% are not displayed)



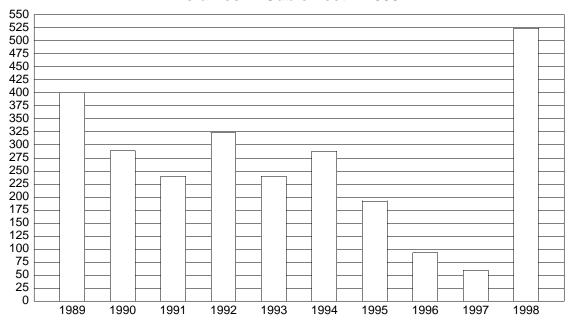
#### **VOLUME PERCENTAGE BY WASTE CLASS** (Percentages <.1% are not displayed)



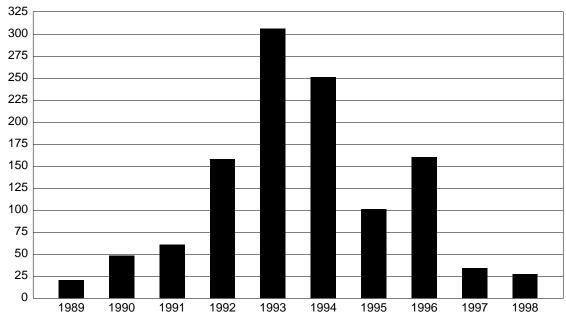
#### SOUTHEAST COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Southeast compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**

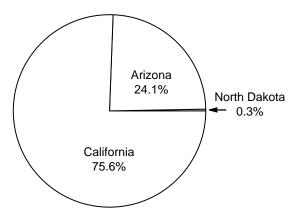


#### SOUTHWESTERN COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

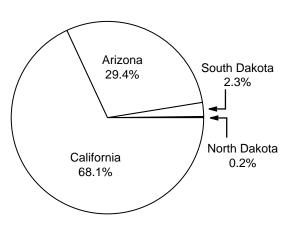
States	Volume (ft <sup>3</sup> )	Activity (curies)
Arizona	3,885.56	246.07
California	12,202.46	570.62
North Dakota	48.77	1.92
South Dakota	2.20	18.93
Total	16,138.99	837.53

#### **VOLUME PERCENTAGE BY STATE** (Percentages <.1% are not displayed)

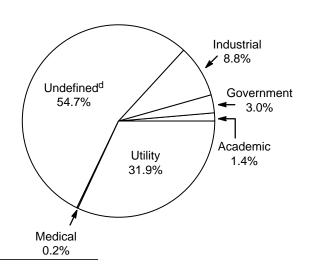
ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)

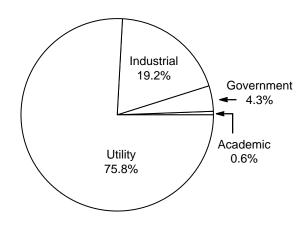


**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)



ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





NOTE: A percentage of 157,188 cubic feet LLW received by Envirocare of Utah may have originated in reporting states. See references note "e" for further explanation.

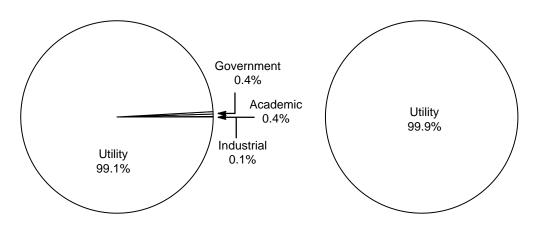
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

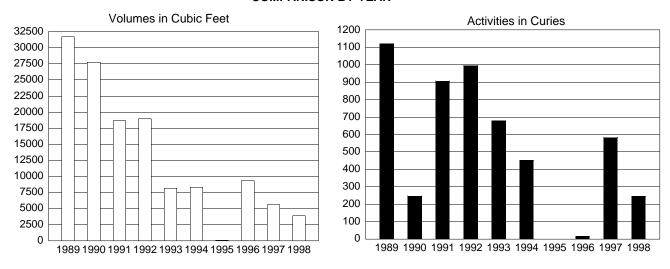
ARIZONA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	15.41	<.01
Government	17.37	.08
Industrial	4.32	.05
Utility	3,848.46	245.93
Total	3,885.56	246.07

#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



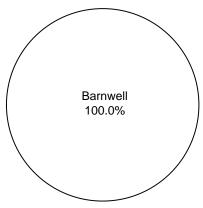


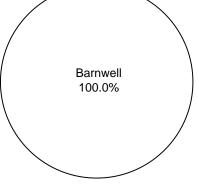
#### **ARIZONA Low-Level Radioactive Wastes Received** at Commercial Disposal Sites in 1998

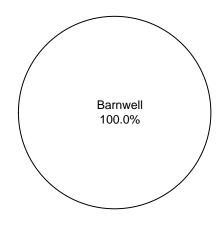
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	3,885.56	246.07
Total	3,885.56	246.07

#### **VOLUME PERCENTAGE BY DISPOSAL SITE** (Percentages <.1% are not displayed)

#### **ACTIVITY PERCENTAGE BY DISPOSAL SITE** (Percentages <.1% are not displayed)



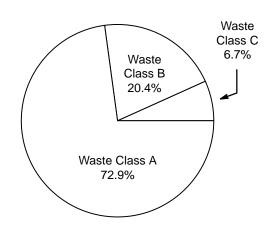




#### **VOLUME BY WASTE CLASS**

**VOLUME PERCENTAGE BY WASTE CLASS** (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	2,833.14
В	794.40
C	258.02
Total	3,885.56

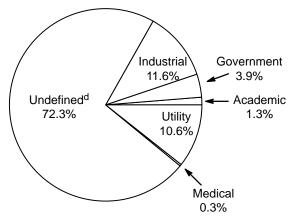


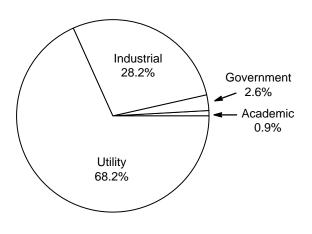
#### CALIFORNIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

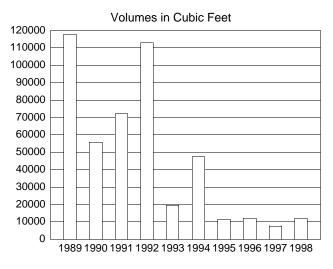
States	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	163.87	5.17
Government	472.44	14.80
Industrial	1,417.88	160.97
Medical	30.99	.19
Undefined <sup>d</sup>	8,826.00	.29
Utility	1,291.28	389.18
Total	12,202.46	570.62

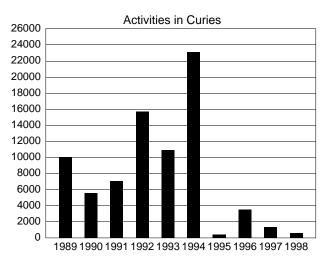
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









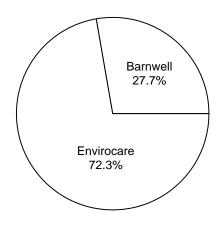
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

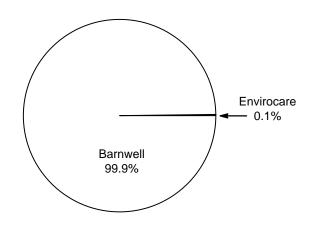
## CALIFORNIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	3,376.46	570.32
Envirocare	8,826.00	.29
Total	12,202.46	570.62

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

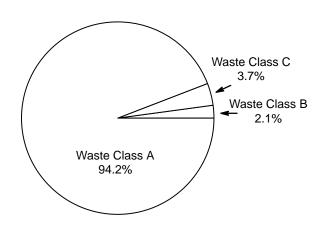




#### **VOLUME BY WASTE CLASS**

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	11,501.33
В	255.68
C	445.45
Total	12,202.46

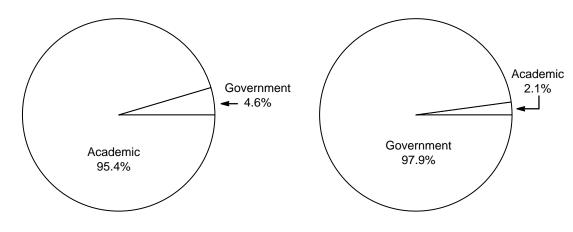


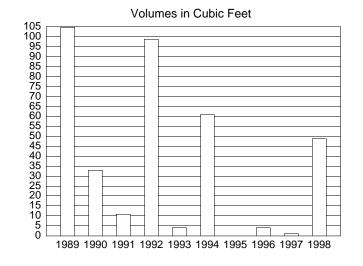
#### NORTH DAKOTA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

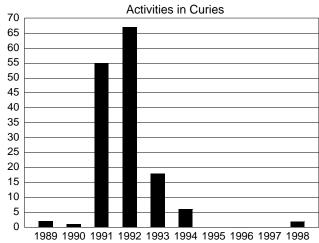
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	46.50	.04
Government	2.27	1.88
Total	48.77	1.92

#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





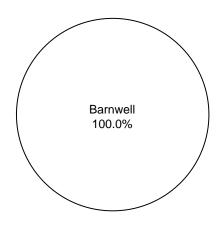


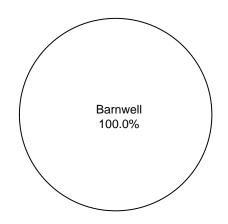
#### NORTH DAKOTA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	48.77	1.92
Total	48.77	1.92

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

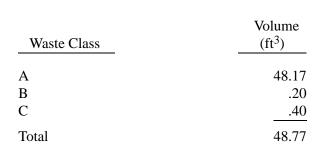
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

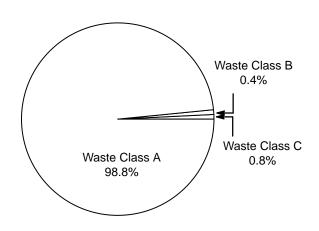




#### **VOLUME BY WASTE CLASS**

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

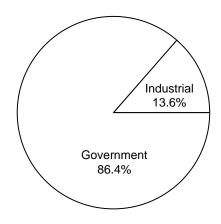




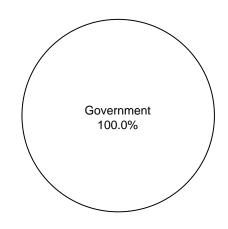
#### SOUTH DAKOTA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

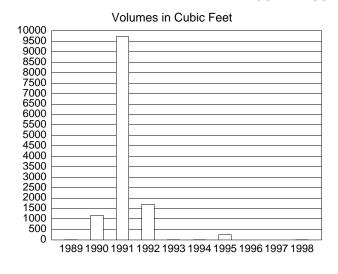
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Government	1.90	18.93
Industrial	.30	<.01
Total	2.20	18.93

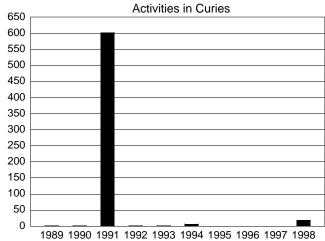
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)



#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)



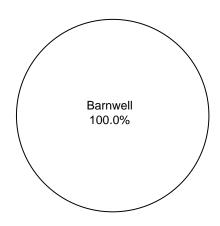




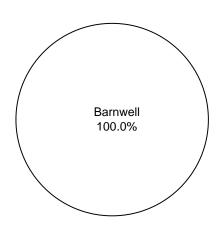
#### SOUTH DAKOTA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	2.20	18.93
Total	2.20	18.93

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



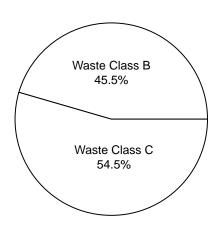
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



**VOLUME BY WASTE CLASS** 

Waste Class	Volume (ft <sup>3</sup> )
A	0
В	1.00
C	1.20
Total	2.20

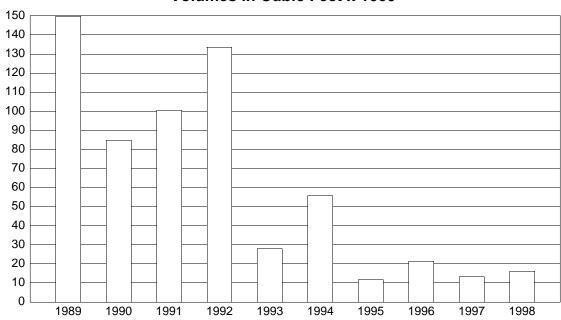
#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



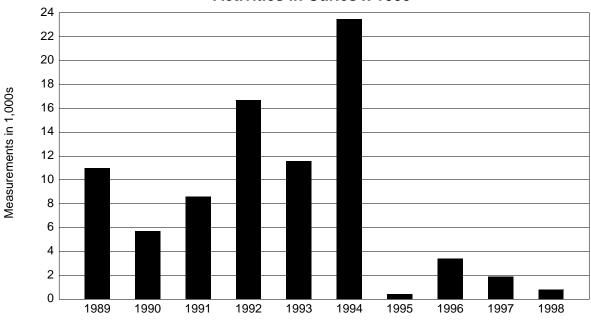
### SOUTHWESTERN COMPACT Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported in the Southwestern compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**

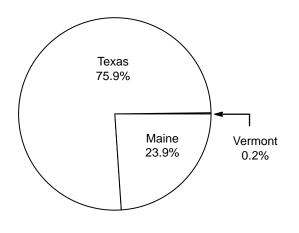


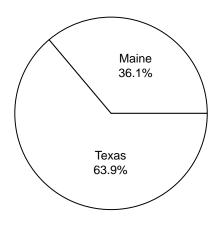
#### TEXAS COMPACT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

States	Volume (ft <sup>3</sup> )	Activity (curies)
Maine	4,125.40	1,066.91
Texas	13,067.38	1,887.28
Vermont	25.58	<.01
Total	17,218.36	2,954.19

#### **VOLUME PERCENTAGE BY STATE** (Percentages <.1% are not displayed)

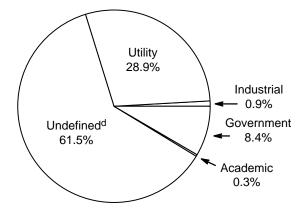
#### ACTIVITY PERCENTAGE BY STATE (Percentages <.1% are not displayed)

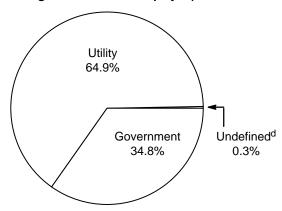




#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





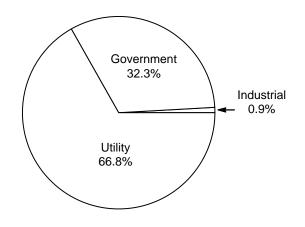
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

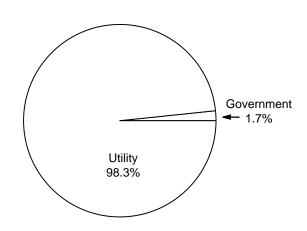
MAINE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

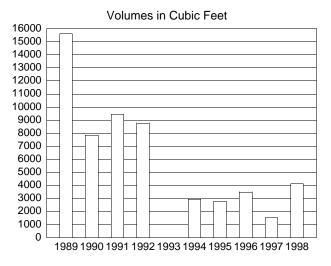
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Government	1,330.80	17.94
Industrial	39.10	.01
Utility	2,755.50	1,048.96
Total	4,125.40	1,066.91

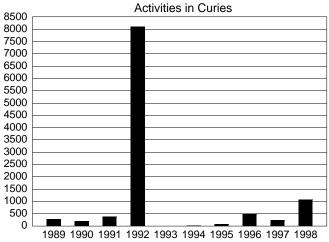
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









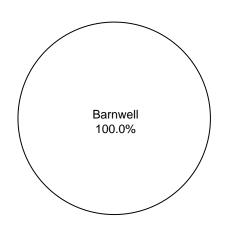
#### MAINE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	4,125.40	1,066.91
Total	4,125.40	1,066.91

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

## Barnwell 100.0%

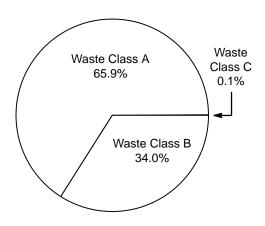
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	2,720.13
В	1,403.40
C	1.87
Total	4,125.40

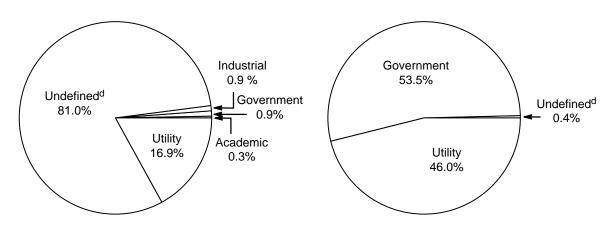


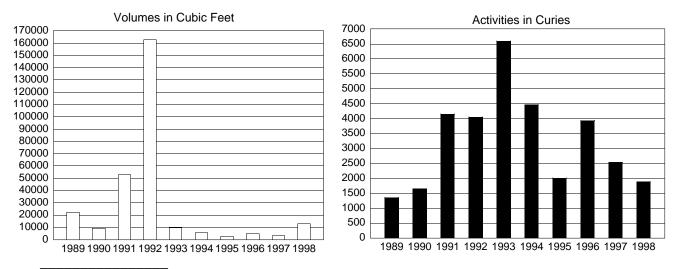
TEXAS
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	44.07	.09
Government	112.30	1,010.04
Industrial	114.50	.99
Medical	.42	.03
Undefined <sup>d</sup>	10,582.50	7.78
Utility	2,213.59	868.35
Total	13,067.38	1,887.28

**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





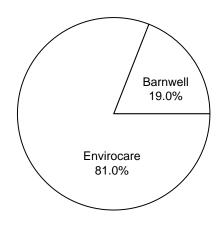
d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

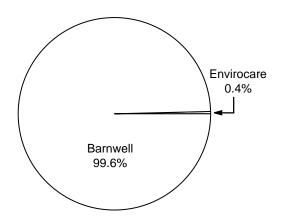
TEXAS
Low-Level Radioactive Wastes Received
at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	2,484.88 10,582.50	1,879.50 7.78
Total	13,067.38	1,887.28

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

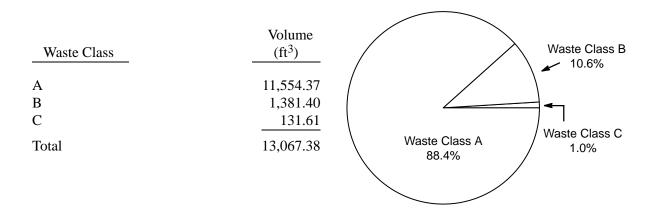
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)





#### **VOLUME BY WASTE CLASS**

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

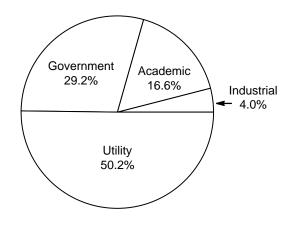


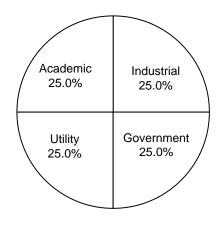
#### VERMONT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

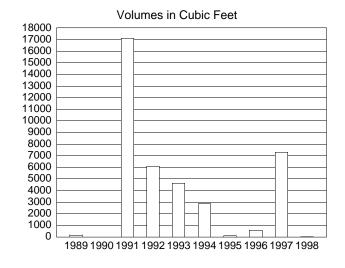
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	4.25	<.01
Government	7.50	<.01
Industrial	1.02	<.01
Utility	12.81	<.01
Total	25.58	<.01

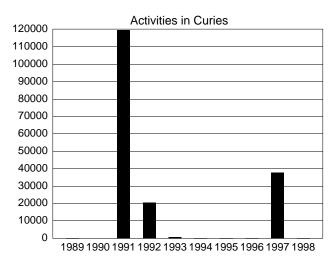
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







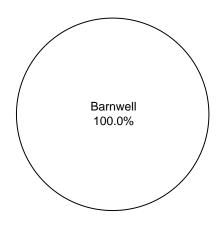


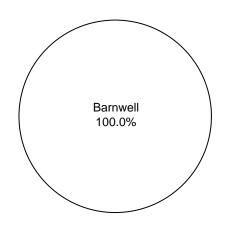
## VERMONT Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	25.58	<.01
Total	25.58	<.01

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)





#### **VOLUME BY WASTE CLASS**

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

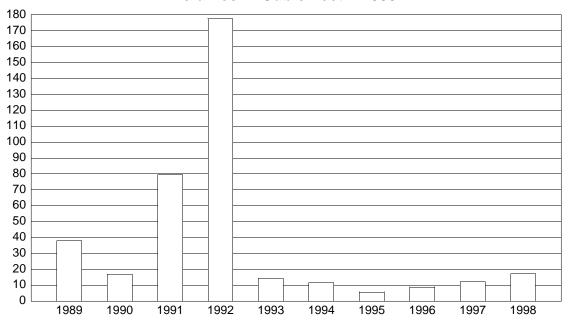
Waste Class	Volume (ft <sup>3</sup> )	
A B C	24.90 0 68	
Total	25.58	

Waste Class A 97.3% Waste Class C 2.3%

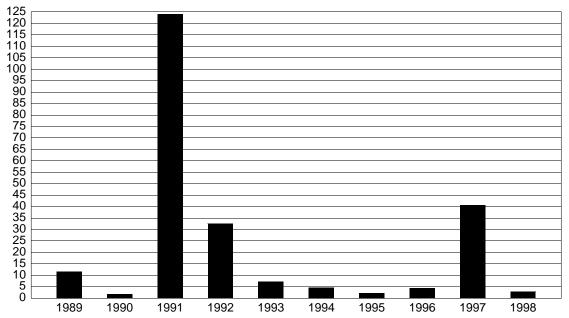
#### **TEXAS COMPACT Comparison By Year**

NOTE: The years 1989 through 1998 include all states currently being reported in the Texas compact region.

#### **Volumes in Cubic Feet x 1000**



#### **Activities in Curies x 1000**



## UNAFFILIATED STATES Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

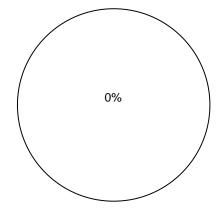
	Volume	Activity
States	$(ft^3)$	(curies)
Army Out U.S.	0	0
District of Columbia	245.15	25.94
Massachusetts	155,654.26	18,998.41
Michigan	81,700.98	37,423.61
New Hampshire	261.55	85.76
New York	13,833.88	54,757.14
Puerto Rico	11.18	<.01
Rhode Island	53.20	21.67
South Carolina	14,135.48	1,188.91
Total	265,895.68	112,501.44

#### ARMY OUT U.S. Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

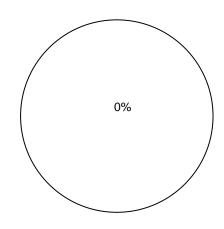
GeneratorVolumeActivityCategory $(ft^3)$ (curies)

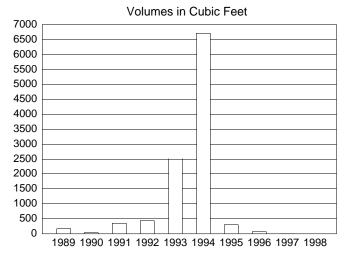
No LLW Disposal Reported for 1998

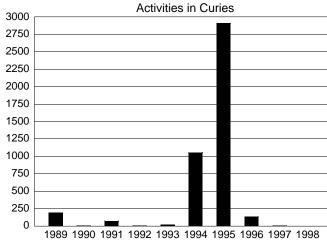
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)



#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







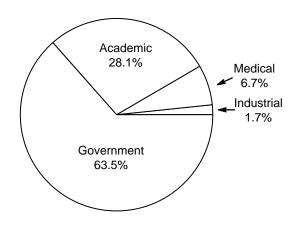
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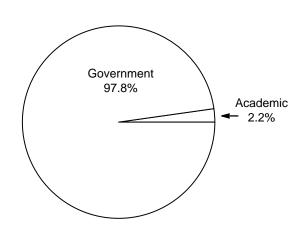
#### DISTRICT OF COLUMBIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

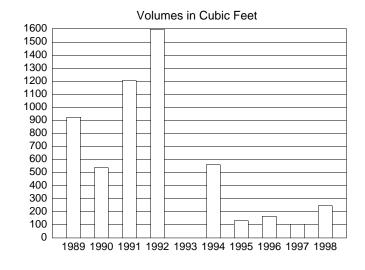
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	68.90	.57
Government	155.79	25.36
Industrial	4.10	<.01
Medical	16.36	<.01
Total	245.15	25.94

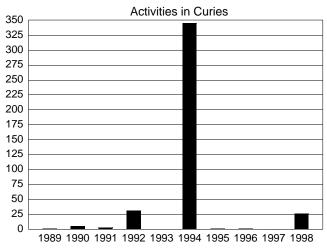
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







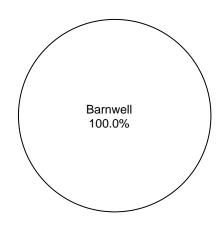


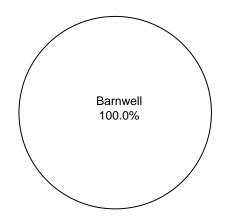
#### DISTRICT OF COLUMBIA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	245.15	25.94
Total	245.15	25.94

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

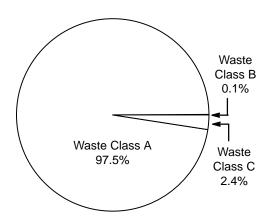




#### **VOLUME BY WASTE CLASS**

#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	239.10
В	.10
C	5.95
Total	245.15

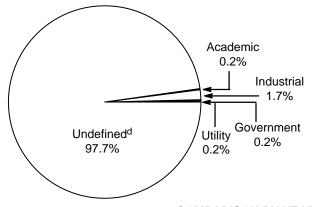


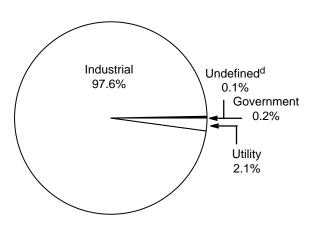
## MASSACHUSETTS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

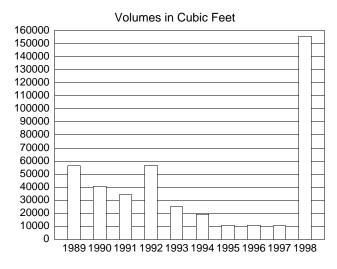
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	245.09	0.96
Government	352.16	31.69
Industrial	2,616.80	18,542.37
Medical	20.93	.88
Undefined <sup>d</sup>	152,109.30	24.63
Utility	309.98	397.88
Total	155,654.26	18,998.41

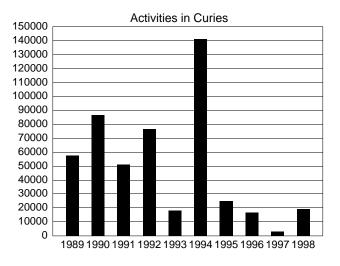
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

## MASSACHUSETTS Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	3,544.96	18,973.78 24.63
Envirocare Total	152,109.30 155,654.26	18,998.41

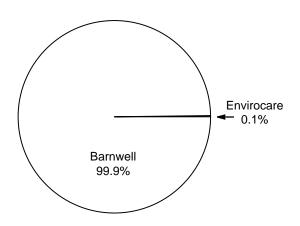
#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 97.7%

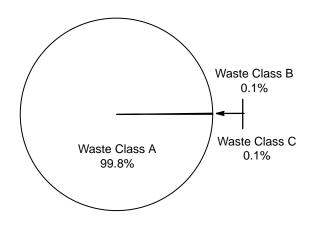
#### **VOLUME BY WASTE CLASS**

# Waste Class Volume (ft³) A 155,350.40 B 180.39 C 123.47 Total 155,654.26

#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

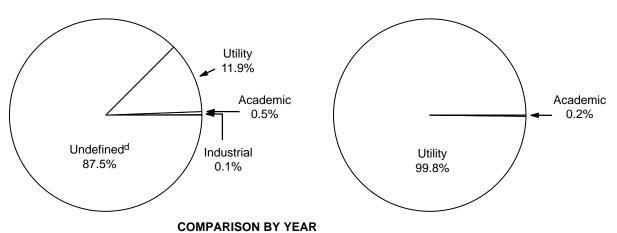


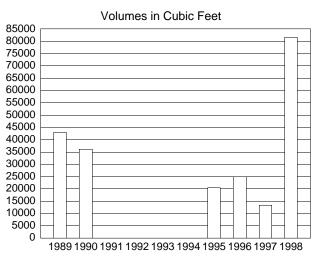
#### MICHIGAN Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

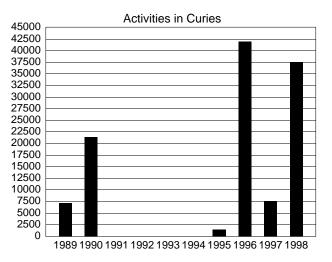
Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	422.67	62.87
Government	7.26	.08
Industrial	64.35	3.01
Medical	8.28	.44
Undefined <sup>d</sup>	71,495.34	.30
Utility	9,703.08	37,356.91
Total	81,700.98	37,423.61

#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)







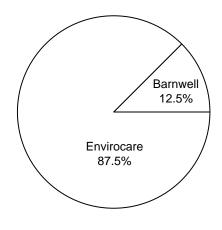
 $<sup>\</sup> d. \ The \ generation \ category \ (source) \ for \ LLW \ disposed \ at \ Envirocare \ of \ Utah \ is \ ``Undefined."$ 

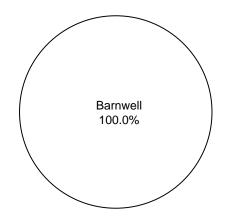
## MICHIGAN Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	10,205.64 71,495.34	37,423.31
Total	81,700.98	37,423.61

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

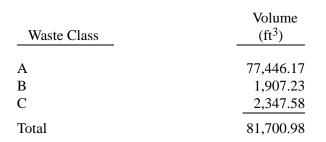
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

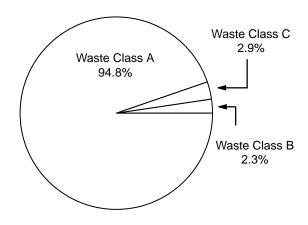




#### **VOLUME BY WASTE CLASS**

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)



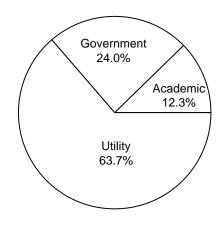


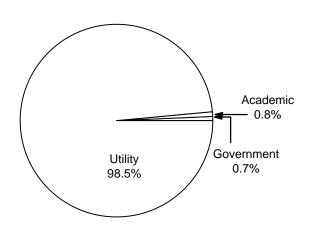
#### NEW HAMPSHIRE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

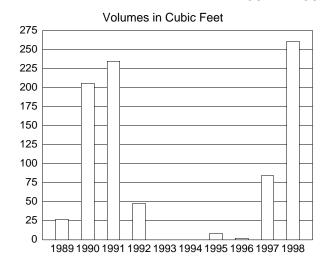
Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	32.05	.66
Government	62.70	.62
Utility	166.80	84.48
Total	261.55	85.76

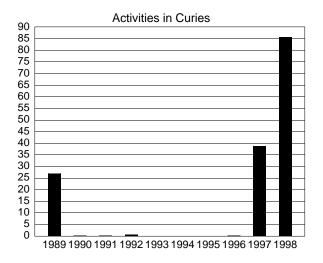
#### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

#### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)









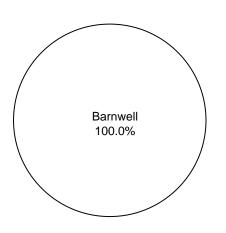
#### NEW HAMPSHIRE Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	261.55	85.76
Total	261.55	85.76

#### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

## Barnwell 100.0%

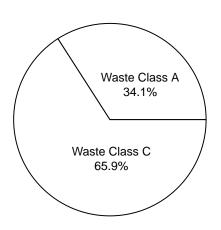
#### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	89.08
В	0
C	172.47
Total	261.55

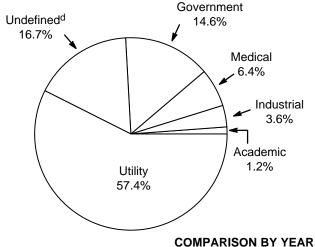


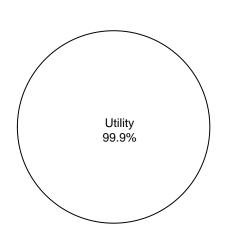
### NEW YORK Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator	Volume	Activity
Category	$(ft^3)$	(curies)
Academic	168.79	29.79
Government	2,025.28	23.12
Industrial	500.93	9.25
Medical	890.02	2.12
Undefined <sup>d</sup>	2,312.70	.04
Utility	7,936.16	54,692.83
Total	13,833.88	54,757.14

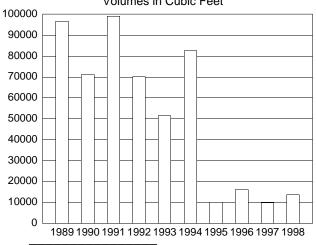
### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

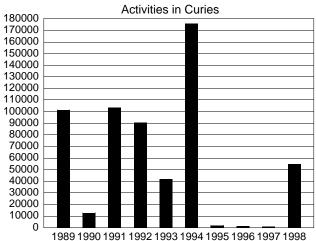
### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)











d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

### NEW YORK Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

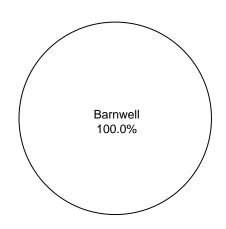
Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	11,521.18 2,312.70	54,757.10
Total	13,833.88	54,757.14

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 16.7%

83.3%

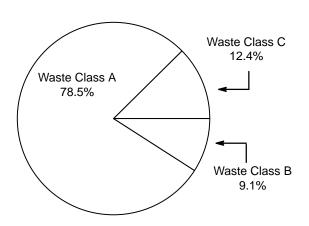
### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



#### **VOLUME BY WASTE CLASS**

### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	10,853.31
В	1,264.68
C	1,715.89
Total	13,833.88

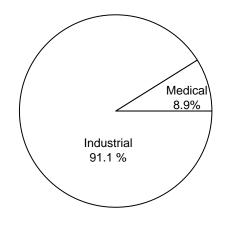


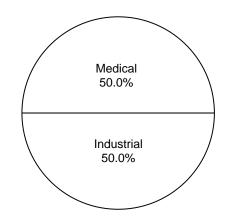
### PUERTO RICO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Industrial	10.18	<.01
Medical	1.00	<.01
Total	11.18	<.01

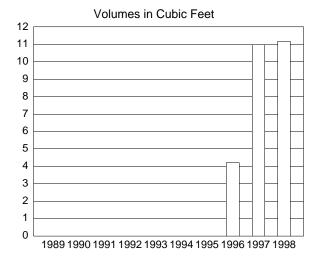
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

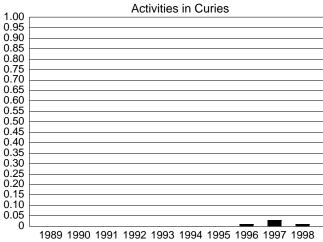
ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





#### **COMPARISON BY YEAR**





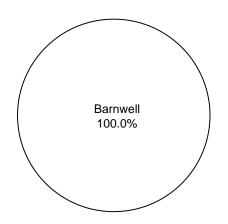
### PUERTO RICO Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	11.18	<.01
Total	11.18	<.01

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

Barnwell 100.0%

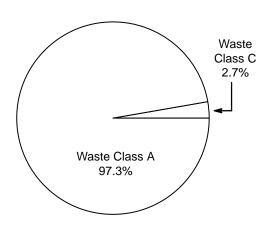
ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



**VOLUME BY WASTE CLASS** 

VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	10.88
В	0
C	30
Total	11.18

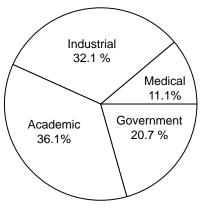


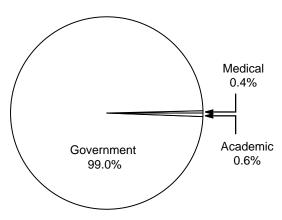
### RHODE ISLAND Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	19.20	.12
Government	11.00	21.46
Industrial	17.10	<.01
Medical	5.90	.08
Total	53.20	21.67

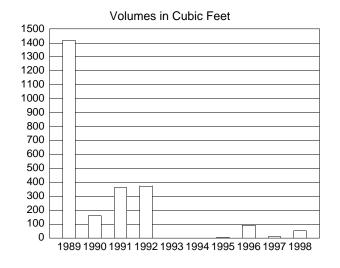
### **VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

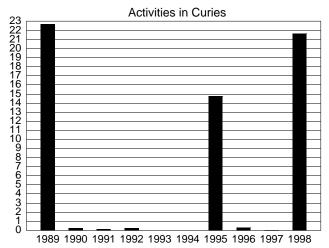
### ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





### **COMPARISON BY YEAR**





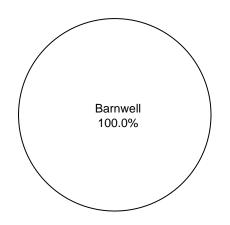
### RHODE ISLAND Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell	53.20	21.67
Total	53.20	21.67

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Barnwell 100.0%

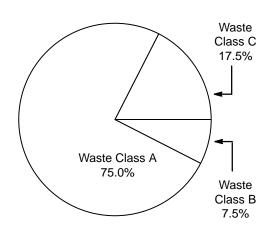
### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



### **VOLUME BY WASTE CLASS**

### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

Waste Class	Volume (ft <sup>3</sup> )
A	39.88
В	4.00
C	9.32
Total	53.20

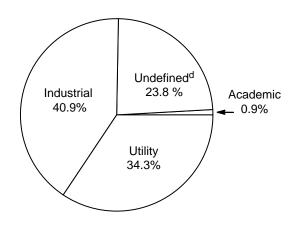


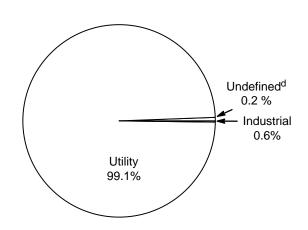
### SOUTH CAROLINA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Generator Category	Volume (ft <sup>3</sup> )	Activity (curies)
Academic	130.03	.65
Government	.11	<.01
Industrial	5,785.86	7.26
Medical	.85	.37
Undefined <sup>d</sup>	3,370.50	2.27
Utility	4,848.13	1,178.36
Total	14,135.48	1,188.91

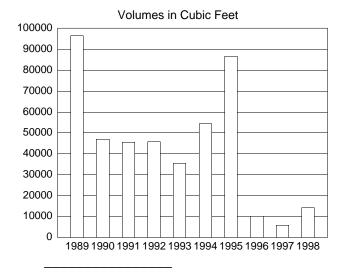
**VOLUME PERCENTAGE BY SOURCE** (Percentages <.1% are not displayed)

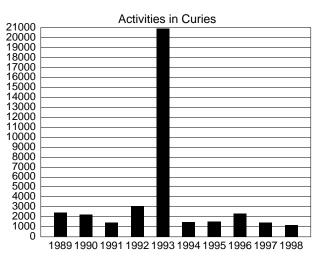
ACTIVITY PERCENTAGE BY SOURCE (Percentages <.1% are not displayed)





### **COMPARISON BY YEAR**





d. The generation category (source) for LLW disposed at Envirocare of Utah is "Undefined."

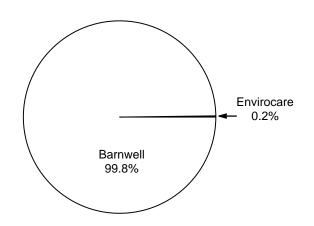
### SOUTH CAROLINA Low-Level Radioactive Wastes Received at Commercial Disposal Sites in 1998

Disposal Site	Volume (ft <sup>3</sup> )	Activity (curies)
Barnwell Envirocare	10,764.98 3,370.50	1,186.64 2.27
Total	14,135.48	1,188.91

### VOLUME PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)

# Envirocare 23.8% Barnwell 76.2%

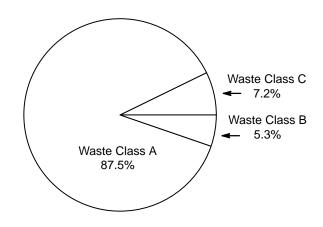
### ACTIVITY PERCENTAGE BY DISPOSAL SITE (Percentages <.1% are not displayed)



### **VOLUME BY WASTE CLASS**

### VOLUME PERCENTAGE BY WASTE CLASS (Percentages <.1% are not displayed)

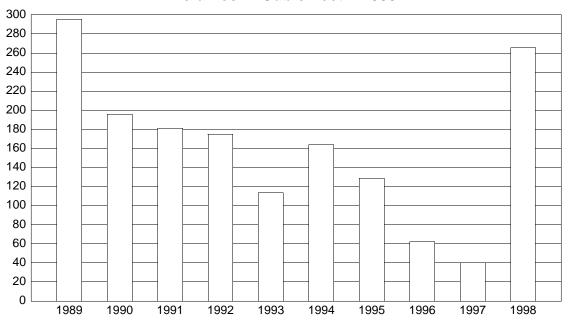
Waste Class	Volume (ft <sup>3</sup> )
A	12,372.47
В	751.25
C	1,011.76
Total	14,135.48



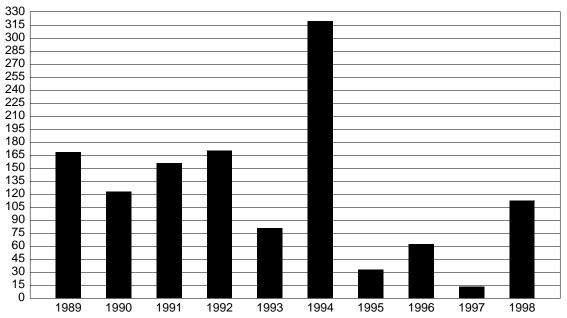
### UNAFFILIATED STATES Comparison By Year

NOTE: The years 1989 through 1998 include all states currently being reported as unaffiliated.

### **Volumes in Cubic Feet x 1000**



### **Activities in Curies x 1000**



### **APPENDIX B**

WASTE VOLUME COMPARISON BY STATE, RADIOACTIVITY COMPARISON BY STATE, AND COMMERCIAL NUCLEAR POWER REACTORS IN THE UNITED STATES Page intentionally left blank.

**Table B-1.** Waste volume comparison by state, 1994-1998, as reported by disposal site operators.

	•		Volume (ft <sup>3</sup> )		
State	1994	1995	1996	1997	1998
Alabama	14,194	14,056	9,267	7,115	7,552
Alaska	44	0	37	2	0
Arizona	8,300	<1	9,329	5,658	3,886
Arkansas	6,258	1,943	571	713	366
Army Out U.S.b	6,716	300	66	<1	0
California	47,458	11,521	12,071	7,798	12,202
Colorado	17,589	68,988	10,163	4,748	1,749
Connecticut	12,737	6,216	10,871	4,013	8,653
Delaware	375	58	127	22	174
District of Columbia	562	130	165	105	245
Florida	11,977	6,136	6,220	4,509	39,531
Georgia	19,428	18,327	13,406	13,135	9,916
Hawaii	1,900	2,634	1,575	1,047	1,809
Idaho	27	1,460	38	30	6
Illinois	61,224	57,762	51,771	37,449	64,947
Indiana	1,623	101	329	381	74
Iowa	3,179	2,058	3,639	830	1,036
Kansas	1,981	926	1,185	946	1,014
Kentucky	333	91	442	29	3,006
Louisiana	15,632	6,768	5,378	3,305	1,235
Maine	2,940	2,808	3,499	1,554	4,125
Maryland	8,421	4,429	3,391	3,139	7,605
Massachusetts	19,486	10,978	10,756	10,645	155,654
Michigan	0	20,459	24,951	13,390	81,701
Minnesota	1,932	2,467	3,215	1,752	1,317
Mississippi	7,128	10,030	5,601	1,688	777
Missouri	5,897	1,423	2,917	1,652	16,128
Montana	10	8	136	173	9
Nebraska	2,634	2,385	5,013	2,993	2,922
Nevada	280	76	302	42	56
New Hampshire	0	9	2	84	262
New Jersey	22,501	14,184	15,805	25,355	8,553
New Mexico	402	891	493	854	396
New York	82,583	10,114	16,228	9,973	13,834
North Carolina	30,707	25,011	0	0	7,390

 Table B-1. (continued).

			Volume (ft <sup>3</sup> )		
State	1994	1995	1996	1997	1998
North Dakota	61	0	4	1	49
Ohio	11,668	8,822	7,091	4,074	130,507
Oklahoma	467	138	152	58	796
Oregon	32,179	74,820	52,367	52,991	92,743
Pennsylvania	51,465	35,200	24,203	14,605	42,686
Puerto Rico	0	0	4	11	11
Rhode Island	0	6	91	11	53
South Carolina	54,544	86,775	10,273	5,870	14,136
South Dakota	5	246	0	0	2
Tennessee	154,301	78,810	41,313	23,589	435,276
Texas	5,880	2,935	4,887	3,399	13,067
Utah	5,849	4,498	5,454	4,386	17,204
Vermont	2,863	120	563	7,313	26
Virginia	50,498	40,130	17,663	8,905	24,753
Washington	66,259	51,606	35,259	27,467	30,810
West Virginia	82	4	35	2	48
Wisconsin	5,892	1,051	2,397	1,305	1,544
Wyoming	206	53	34	8	4
Unknown <sup>c</sup>					157,188
Total	858,677	689,957	430,752	319,120	1,419,034

b. Army Out U.S. = U.S. owned military bases located outside the continental United States.

c. Brokered LLW disposed at Envirocare of Utah, state or origin Unknown.

**Table B-2.** Waste radioactivity comparison by state, 1994-1998, as reported by disposal site operators.

	Radioactivity (ci)				
State	1994	1995	1996	1997	1998
Alabama	9,034	78,340	22,281	25,408	3,583
Alaska	5	0	604	100	0
Arizona	453	0	16	584	246
Arkansas	473	8	303	2	7
Army Out U.S.b	1,056	2,914	133	<1	0
California	23,132	409	3,475	1,351	571
Colorado	4,521	553	85	7	975
Connecticut	889	841	3,088	259	223
Delaware	69	<1	6	<1	<1
District of Columbia	345	<1	1	<1	26
Florida	3,280	2,444	1,418	632	2,089
Georgia	167,310	13,798	122,520	3,209	1,233
Hawaii	50	1,821	1	27	692
Idaho	94	<1	<1	<1	22
Illinois	32,136	7,044	57,329	18,385	112,662
Indiana	129	36	10	1	45
Iowa	1,633	209	552	174	267
Kansas	2,297	398	3,996	704	354
Kentucky	285	20	462	<1	5
Louisiana	1,878	13,244	799	501	292
Maine	17	78	477	244	1,067
Maryland	1,440	346	349	199	532
Massachusetts	141,110	24,903	16,628	3,143	18,998
Michigan	0	1,438	41,907	7,611	37,424
Minnesota	1,739	365	1,406	83	314
Mississippi	660	1,543	2,818	136	17,376
Missouri	1,200	183	150	2,426	812
Montana	<1	0	<1	1	<1
Nebraska	992	407	32,751	514	7,747
Nevada	4	<1	2	21	<1
New Hampshire	0	0	<1	39	86
New Jersey	5,727	996	907	754	21,183
New Mexico	6	2	5	3	12
New York	175,843	1,951	1,312	771	54,757
North Carolina	68,213	3,310	0	0	4

 Table B-2. (continued).

			Radioactivity (ci)		
State	1994	1995	1996	1997	1998
North Dakota	6	0	<1	<1	2
Ohio	583	553	50,021	1,076	100
Oklahoma	64	<1	<1	822	<1
Oregon	48	1,279	357	28	551
Pennsylvania	93,730	5,692	71,901	8,247	43,691
Puerto Rico	0	0	<1	<1	<1
Rhode Island	0	15	<1	<1	22
South Carolina	1,476	1,504	2,347	1,398	1,189
South Dakota	7	<1	0	0	19
Tennessee	194	777	645	515	723
Texas	4,462	2,010	3,941	2,544	1,887
Utah	80	22	<1	2	2
Vermont	158	135	46	37,677	<1
Virginia	2,402	951	10,375	4,214	2,538
Washington	1,264	923	654	505	150
West Virginia	<1	5	<1	<1	37
Wisconsin	879	348	153	2,652	8
Wyoming	6	<1	13	1	<1
Unknown <sup>c</sup>					40
Total	751,379	171,816	456,246	126,967	334,563

b. Army Out U.S. = U.S. owned military bases located outside the continental United States.

c. Brokered LLW disposed at Envirocare of Utah, state or origin Unknown.

**Table B-3.** Commercial nuclear power reactors in the United States, as of December 31, 1998.

State Name	Facility Name	Commercially Operational Date	Units	Туре
	· -			
Alabama	<ul><li>Browns Ferry Nuclear Power Station</li><li>Joseph M. Farley Nuclear Plant</li></ul>	8/74 12/77	1,2&3 1&2	BWR <sup>g</sup> PWR <sup>h</sup>
	Joseph M. Farley Nuclear Plant	12///	1&2	F W K
Arizona	Palo Verde Nuclear Generating Station	1/86	1,2&3	PWR
Arkansas	Arkansas Nuclear One	12/74	1&2	PWR
California	Diablo Canyon Nuclear Power Plant	5/85	1&2	PWR
	• Humboldt Bay Power Plant (closed 1976)			BWR
	<ul> <li>Rancho Seco Nuclear Generating Station (closed 1989)</li> </ul>			PWR
	• San Onofre Nuclear Generating Station (Unit 1 closed 1992)	8/83	2&3	PWR
Colorado	• Ft. St. Vrain Nuclear Generating Station (closed 1989)			HTGR <sup>i</sup>
Connecticut	<ul> <li>Haddam Neck Plant (closed 1996)</li> </ul>			PWR
	<ul> <li>Millstone Nuclear Power Station (Unit 1 closed 1998)</li> </ul>			BWR
	Millstone Nuclear Power Station	12/75	2&3	PWR
Florida	Crystal River Nuclear Plant	3/77	3	PWR
	St. Lucie Plant	12/76	1&2	PWR
	Turkey Point Plant	12/72	3&4	PWR
Georgia	Edwin I. Hatch Nuclear Plant	12/75	1&2	BWR
	Alvin W. Vogtle Jr. Nuclear Plant	5/87	1&2	PWR
Illinois	Byron Nuclear Power Station	9/85	1&2	PWR
	<ul> <li>Clinton Power Station</li> </ul>	11/87	1	BWR
	<ul> <li>Dresden Nuclear Power Station (Unit 1 closed 1978)</li> </ul>	6/70	2&3	BWR
	<ul> <li>LaSalle County Station</li> </ul>	1/84	1&2	BWR
	<ul> <li>Quad Cities Station</li> </ul>	2/73	1&2	BWR
	<ul> <li>Zion Nuclear Plant (closed 1998)</li> </ul>			PWR
	Braidwood Station	7/88	1&2	PWR
Iowa	Duane Arnold Energy Center	2/75	1	BWR
Kansas	Wolf Creek Generating Station	9/85	1	PWR

 Table B-3. (continued).

State Name	Facility Name	Commercially Operational Date	Units	Type
Louisiana	River Bend Station	6/86	1	BWR
	Waterford Generating Station	9/85	3	PWR
Maine	• Maine Yankee Atomic Power Plant (closed 1996)			PWR
Maryland	Calvert Cliffs Nuclear Power Plant	5/75	1&2	PWR
Massachusetts	Pilgrim Nuclear Power Station	12/72	1	BWR
	<ul> <li>Yankee Nuclear Power Station (closed 1991)</li> </ul>			PWR
Michigan	• Big Rock Point Nuclear Plant (closed 8/97)			BWR
	<ul> <li>Donald C. Cook Nuclear Power Plant</li> </ul>	8/75	1&2	PWR
	<ul> <li>Fermi Atomic Power Plant</li> </ul>	1/88	2	BWR
	Palisades Nuclear Plant	12/71	1	PWR
Minnesota	Monticello Nuclear Generating Plant	6/71	1	BWR
	Prairie Island Nuclear Generating Plant	12/73	1&2	PWR
Mississippi	Grand Gulf Nuclear Station	7/85	1	BWR
Missouri	Callaway Plant	4/85	1	PWR
Nebraska	Cooper Nuclear Station	7/74	1	BWR
	Fort Calhoun Station	9/73	1	PWR
New Hampshire	Seabrook Nuclear Station	7/90	1	PWR
New Jersey	Hope Creek Nuclear Generating Station	12/86	1	BWR
	<ul> <li>Oyster Creek Nuclear Power Plant</li> </ul>	12/69	1	BWR
	Salem Nuclear Generating Station	6/77	1&2	PWR
New York	James A. FitzPatrick Nuclear Power Plant	7/75	1	BWR
	Robert Emmett Ginna Nuclear Power Plant	7/70	1	PWR
	• Indian Point Station (Unit 1 closed 1974)	8/74	2&3	PWR
	Nine Mile Point Nuclear Station	12/69	1&2	BWR
	<ul> <li>Shoreham Nuclear Power Station (closed 1989)</li> </ul>			BWR
North Carolina	Brunswick Steam Electric Plant	11/75	1&2	BWR
	McGuire Nuclear Station	12/81	1&2	PWR
	Shearon Harris Nuclear Power Plant	5/87	1	PWR

 Table B-3. (continued).

State Name	Facility Name	Commercially Operational Date	Units	Туре
Ohio	Davis-Besse Nuclear Power Station	7/78	1	PWR
	Perry Nuclear Power Plant	11/87	1	BWR
Oregon	• Trojan Nuclear Plant (closed 1992)			PWR
Pennsylvania	Beaver Valley Power Station	10/76	1&2	PWR
	<ul> <li>Limerick Generating Station</li> </ul>	2/86	1&2	BWR
	<ul> <li>Peach Bottom Atomic Power Station</li> </ul>	7/74	2&3	BWR
	<ul> <li>Susquehanna Steam Electric Station</li> </ul>	6/83	1&2	BWR
	Three Mile Island Nuclear Station	9/74	1	PWR
South Carolina	Catawba Nuclear Station	6/85	1&2	PWR
	Oconee Nuclear Plant	7/73	1,2,&3	PWR
	<ul> <li>Robinson Plant</li> </ul>	3/71	2	PWR
	Virgil C. Summer Nuclear Station	1/84	1	PWR
Tennessee	Sequoyah Nuclear Plant	7/81	1&2	PWR
	Watts Bar Nuclear Plant	5/96	1	PWR
Texas	South Texas Project	8/88	1&2	PWR
	Comanche Peak	8/90	1&2	PWR
Vermont	Vermont Yankee Nuclear Power Station	11/72	1	BWR
Virginia	North Anna Power Station	6/78	1&2	PWR
	Surry Power Station	12/72	1&2	PWR
Washington	Washington Nuclear Project	12/84	2	BWR
Wisconsin	Kewaunee Nuclear Power Plant	6/74	1	PWR
	<ul> <li>La Crosse Nuclear Generating Station (closed 1987)</li> </ul>			BWR
	Point Beach Nuclear Plant	12/70	1&2	PWR

f. "World List of Nuclear Power Plants," Nuclear News, March, 1999.

 $g. \hspace{1cm} BWR \hspace{1mm} = \hspace{1mm} Boiling\text{-Water Reactor.}$ 

 $h. \hspace{1cm} PWR \hspace{1cm} = \hspace{1cm} Pressurized\text{-Water Reactor.}$ 

i. HTGR = High Temperature Gas Reactor.

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## APPENDIX C STATE RADIATION PROGRAM

**REPRESENTATIVES** 

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**Table C-1.** State radiation program representatives.

State	Draft Report Sent to:	
Alabama	K. E. Whatley	
Alaska	K. Coleman	
Arizona	A. V. Godwin	
Arkansas	D. D. Snellings, Jr.	
California	E. D. Bailey	
Colorado	R. M. Quillin	
Connecticut	None	
Delaware	A. C. Tapert	
District of Columbia	N. J. Stewart	
Florida	W. A. Passetti	
Georgia	T. E. Hill	
Hawaii	None	
Idaho	G. Klokeid	
Illinois	P. Eastvold	
Indiana	J. H. Ruyack	
Iowa	D. A. Flater	
Kansas	V. L. Cooper	
Kentucky	J. A. Volpe	
Louisiana	W. H. Spell	
Maine	None	
Maryland	R. G. Fletcher	
Massachusetts	R. M. Hallisey	
Michigan	J. Camburn	
Minnesota	J. Ball	
Mississippi	R. W. Goff	
Missouri	G. McNutt	
Montana	G. Eicholtz	
Nebraska	None	
Nevada	S. R. Marshall	
New Hampshire	D. E. Tefft	
New Jersey	J. Lipoti	
New Mexico	W. M. Floyd	
New York	P. J. Merges	
North Carolina	R. M. Fry	
North Dakota	D. K. Mount	
Ohio	R. L. Suppes	
Oklahoma	M. Broderick	
	III DIOGOTION	

 Table C-1. (continued).

State	Draft Report Sent to
Oregon	R. D. Paris
Pennsylvania	K. Kerns
Puerto Rico	None
Rhode Island	M. Stoeckel
South Carolina	M. K. Batavia
South Dakota	J. Robertson
Tennessee	M. H. Mobley
Texas	R. A. Ratliff
Utah	W. J. Sinclair
Vermont	P. E. Clemons
Virginia	L. P. Foldesi
Washington	J. L. Erickson
West Virginia	B. L. DeBord
Wisconsin	P. S. Schmidt
Wyoming	None